

FINAL REPORT

CAUCASUS HEALTH SECTOR ASSESSMENT

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TABLE OF CONTENTS

Acronym List	vi
Executive Summary	ix
1.0 Introduction and Regional Overview	1
1.1 Study Scope and Purpose	1
1.2 General Background	1
1.3 Health Sector Commonalities	2
1.3.1 The Systems	2
1.3.2 Epidemiology	3
1.3.3 Access and Affordability	3
1.3.4 Health Information	3
1.4 Important Distinctions	4
1.5 A General Approach	4
1.6 Options	5
1.7 Rationale for USAID Health Activities	7
1.8 Recommendations	8
2.0 Options Matrix	10
2.1 Recommendations	10
2.2 Options	16
2.2.1 Armenia	16
2.2.2 Georgia	21
2.2.3 Azerbaijan	26
3.0 Public Health Issues	29
3.1 Epidemiology Summary	29
3.2 Primary Care and Delivery System Change Summary	29
3.3 Environmental Summary	30
3.4 Health Information System Summary	30
3.4.1 Key Health Data	31
3.5 Health Realities and Policy Implications	33
3.6 Priorities	34
3.7 Health Trends	35
3.8 Health Care Structure and Financing	36
3.8.1 Vulnerables	37
3.9 Maternal, Child, and Reproductive Health	38
3.10 Nutritional Deficiencies	39
3.11 Communicable Diseases	39
3.11.1 Chronic Disease	41
3.12 Four System Issues	41

3.12.1	Health Information Systems (HIS)	41
3.12.2	Management	43
3.12.3	Quality	43
3.12.4	Pharmaceuticals	45
4.0	Country Papers	46
4.1	Armenia	46
4.1.1	Socioeconomic and Political Context	46
4.1.1.1	Privatization and Investment	46
4.1.1.2	Social Summary	47
4.1.2	Health	48
4.1.2.1	Reform	49
4.1.2.2	Administrative Structure and Responsibilities	50
4.1.2.3	Access	52
4.1.2.4	Pharmaceuticals	53
4.1.2.5	Perceived Quality	53
4.1.2.6	Health Information Systems	54
4.1.3	Priority Health Problems	55
4.1.3.1	Smoking	56
4.1.3.2	Tuberculosis	56
4.1.3.3	Sexually Transmitted Diseases (STDs) and HIV/AIDS	56
4.1.3.4	Child Health Issues	59
4.1.3.5	Maternal Health Issues	60
4.1.3.6	Reproductive Health Issues	61
4.1.3.7	Mental Health	62
4.1.3.8	Water and Sanitation	63
4.1.4	Past USAID Assistance in the Health Sector	63
4.1.4.1	CDC and Health Information Systems	63
4.1.4.2	Partnerships	63
4.1.5	Other U.S. Government Health Assistance	64
4.1.6	Other Donors	64
4.1.7	Recommendations	65
4.1.7.1	Major Options Not Developed	65
4.1.7.2	Selected Options for USAID Consideration	66
4.2	Azerbaijan	67
4.2.1	Socioeconomic and Political Context	67
4.2.1.1	Privatization and Investment	68
4.2.1.2	Social Summary	69
4.2.2	Health, Health Care Financing, and Structure	70
4.2.2.1	Reform	71
4.2.2.2	UNICEF Demonstrations	71

4.2.2.3	Administrative Structure and Responsibilities	73
4.2.2.4	Access	73
4.2.2.5	Pharmaceuticals	74
4.2.2.6	Perceived Quality	74
4.2.3	Priority Health Problems	75
4.2.3.1	Tuberculosis	75
4.2.3.2	Child Health	76
4.2.3.3	Vaccine-Preventable Childhood Diseases	76
4.2.3.4	Nutritional Concerns	77
4.2.3.4.1	Micronutrient Deficiencies and Anemia	78
4.2.3.5	Maternal Health	79
4.2.3.6	Reproductive Health	80
4.2.3.7	Breastfeeding	81
4.2.3.8	Shelter	82
4.2.3.9	Mental Health	82
4.2.3.10	Degree and Frequency of Illness	83
4.2.4	Past USAID Assistance in the Health Sector	83
4.2.5	Other Donors	84
4.2.6	Recommendations	85
4.2.6.1	Selected Options for USAID Consideration	85
4.3	Georgia	86
4.3.1	Socioeconomic and Political Context	86
4.3.1.1	Privatization and Investment	87
4.3.1.2	Social Summary	87
4.3.2	Health	88
4.3.2.1	Reform	89
4.3.2.2	Access	91
4.3.2.3	Pharmaceuticals	92
4.3.2.4	Perceived Quality	92
4.3.2.5	Health Information Systems	93
4.3.3	Priority Health Problems	94
4.3.3.1	Tuberculosis	94
4.3.3.2	Sexually Transmitted Diseases (STDs)	95
4.3.3.3	HIV/AIDS	95
4.3.4	Primary Health Care Issues	96
4.3.4.1	Vaccine-Preventable Diseases	97
4.3.4.2	Reproductive Health	97
4.3.4.3	Lifestyle Issues	98
4.3.4.4	Nutritional Concerns	98
4.3.4.5	Pharmaceutical Issues	98
4.3.5	Past USAID Assistance in the Health Sector	99
4.3.5.1	CDC and Health Information Systems	99

4.3.5.2	Hospital Partnerships	99
4.3.6	Other U.S. Government Programs	100
4.3.7	Other Donors	100
4.3.8	Recommendations	101
4.3.8.1	Major Options Not Developed	101
4.3.8.2	Selected Options for USAID Consideration	102

Annexes

Annex A—A Note on Epidemiologic Considerations

Annex B—Assessment of the Health Sector in the Caucasus Scope of Work

Annex C—Contacts List

Annex D—Caucasus Health Assessment Materials

ACRONYM LIST

AHAP	American Humanitarian Assistance Program
AIDS	acquired immune deficiency syndrome
ALRI	acute lower respiratory infection
ANHAIC	Armenian National Health and Analytical Information Center
ARI	acute respiratory infection
AUA	American University of Armenia
BBP	Basic Benefits Plan
BCG	Bacille Calmette-Guerin
BCP	birth control pill
BF	breastfeeding
CBA	child-bearing age
CBO	community-based organizations
CDC	Centers for Disease Control
CDD	control of diarrheal diseases
CHW	community health worker
CME	continuing medical education
CNE	continuing nursing education
CPR	contraceptive prevalence rate
CVD	cardiovascular disease
DALY	disability adjusted life year
DD	diarrheal disease
DOTS	directly observed therapy—short course
DPT	diphtheria-pertussis-tetanus
ECHO	European Community Humanitarian Office
EPI	Expanded Program on Immunization
FAP	feldsher access point
FP	family planning
FSU	former Soviet Union
GC	gonococcus
GI	gastrointestinal
GOA	government of Armenia
GOAz	government of Azerbaijan
GOG	government of Georgia
HAZ	height for age—Z-score
HE	health education
HH	household
HIS	health information system
HIV	human immunodeficiency virus
HTN	hypertension
ICRC	International Committee of the Red Cross
IDA	iron deficiency anemia

IDP	internally displaced person
IEC	information, education, and communication
IFRC	International Federation of the Red Cross and Red Crescent Societies
IHD	ischemic heart disease
IMR	infant mortality rate
IUD	intrauterine device
IVDU	intravenous drug user
KAP	knowledge, attitude, and practice
LBW	low birth weight
MCH	maternal child health
MDM	Médecins du Monde
MMR	maternal mortality rate
MOG	Ministry of Georgia
MOH	Ministry of Health
MR	mortality rate
MSF	Médecins sans Frontières
MUAC	mid-upper arm circumference
NGO	nongovernmental organization
NK	Nagorno-Karabagh (or Karabakh)
OCP	oral contraceptive pill
ORS	oral rehydration solution
ORT	oral rehydration therapy
PG	pregnancy/pregnant
PH	public health
PHC	primary health care
PID	pelvic inflammatory disease
PNC	prenatal care
PPA	Pharmaceutical Policy Administration
QA	quality assurance
QI	quality improvement
QM	quality management
RH	reproductive health
RI	Relief International
RP	resident population
RPM	rational pharmaceutical management
SES	socioeconomic status
SES	sanitary epidemiologic station/service
SHA	State Health Agency
STD	sexually transmitted diseases
TB	tuberculosis
TBI	Tuberculosis Institute
UK	United Kingdom
UMCOR	United Methodist Committee on Relief

UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
UTI	urinary tract infection
WB	World Bank
WFP	World Food Program
WHO	World Health Organization
WHZ	weight for height—Z-score
WVI	World Vision International

EXECUTIVE SUMMARY

BHM International was contracted by USAID to undertake an assessment of the health sector in Armenia, Azerbaijan, and Georgia. This report summarizes the findings, conclusions, and recommendations of the May 1998 field assessment.

The health sectors in the Caucasus have been especially imperiled by pre- and postindependence economic disruptions, costly civil and military strife, and natural disasters. In all three countries, the health delivery systems are characterized by massive excess capacity (hospitals, beds, and hospital-based medical specialists) and an absence of patients. Substantial underfunding of the sector leaves virtually all facilities in disrepair and lacking even the most essential medical equipment, pharmaceuticals, and supplies. In addition, health information critical to informed decision making by individuals, providers, health care managers, and officials is seriously lacking.

The epidemiological profiles in each country show that cardiovascular diseases, cancers, and other “lifestyle” diseases are the leading causes of morbidity and mortality in the Caucasus, although the incidence of some infectious diseases such as tuberculosis and STDs is increasing. Nevertheless, little attention is given to cost-effective primary health care programs such as disease prevention, health promotion, and lifestyle modification, and there are few appropriately trained primary care physicians or primary care services.

Out-of-pocket fees, formal and otherwise, now finance approximately 80 percent of total spending in the health sector in the Caucasus. As a result, most people have access only to abysmal health care and are unable to afford the medical care they need. People have little confidence in the care offered at most facilities, and quality care is available only to the small segment of the population that can afford it.

In all three countries, health care is changing. The changes encompass health care policies, costs and who bears them, access, delivery, utilization, and structure. In Georgia and Armenia, changes are guided in part by government health care reform efforts supported primarily by the World Bank. In Azerbaijan, which has displayed little interest in health sector reform, the primary changes taking place are de facto changes dictated primarily by the sector’s lack of resources. However, even where change is planned and intentional, few outside the Ministries of Health and capital cities have any understanding of what those reforms and changes mean for them. The citizenry, providers, and, indeed, even many units of government at the national, regional, and local levels have no conception of how they will organize and work with the new roles, rights, and responsibilities that are the product of reform and change.

This assessment recommends that the USAID Missions of the Caucasus consider a health strategy that would support and promote

- reducing sectoral inefficiencies and redirecting savings to more efficient primary health care services;

- actively engaging the people, providers, and authorities in “operationalizing” health care reform at the local or community and regional levels;
- exploring risk-pooling/insurance mechanisms perhaps offered at local, regional, and/or national levels for routine and primary care and perhaps a national pool for catastrophic coverage; and
- strengthening health information available to consumers as well as health information systems (HIS) at the local, regional, and national levels. The HIS would inform medical and health policy decision making, build outcome-based treatment protocols, and maximize resource allocations.

This recommended strategy seeks to engage and empower local and regional populations, health care providers, and local, subnational, and central decision makers in the evolving health sector. It is they who must translate reform goals into actions, and it is they who will have to assume the new roles, rights, and responsibilities that follow. While there is policy-making leadership at the center in Armenia and Georgia, understanding of reform is weakest at the regional and local levels. Hence, it is the regional and local levels where USAID support can have the greatest impact.

The priority interventions proposed for USAID consideration are (see Table of Recommendations)

Armenia, Azerbaijan, and Georgia

- **Reproductive health.** Broad IEC efforts aimed at clients and health care providers; reproductive health survey; and design of long-term projects.

Armenia and Georgia

- **Making health care reform work.** One or two intensive and integrated pilots at city or subregional levels, concentrating on primary health care and empowering local jurisdictions to protect the health of their population (supports Strategic Objectives 3.2, 2.1, and 2.3).
- **Solidifying and strengthening health information systems at local, regional, and central levels.** Monitoring, surveillance, and response capability is a prerequisite for all reform efforts.
- **Strengthening public health clinical competency.** Support of institutions that train future health providers and support of activities that address the healthy lifestyles information gap.
- **National policy work.** Donor coordination; licensing and accreditation; and financing.

Azerbaijan

- **Community and service provider empowerment.** Support of IEC and advocacy skills, expansion of UNICEF primary health care demonstrations, and development of broader maternal and child health initiatives.

TABLE OF RECOMMENDATIONS

ARMENIA, GEORGIA, and AZERBAIJAN								
PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
Reproductive health (including STDs and HIV/AIDS)	<p>a) Broad IEC effort aimed at clients and health care providers</p> <p>b) Reproductive health survey</p> <p>c) New evaluation to determine effectiveness of current donor activities and design to finalize LT program focus</p>	<p>a) Short</p> <p>b) Short to medium</p> <p>c) Medium + TBD</p>	Congressional earmark, high morbidity and mortality rates, low level of awareness among both population and providers, increase in STDs and HIV/AIDS SO 3.2—Improved sustainability of health and social benefits and services	<p>a) Greater knowledge of reproductive health, STDs, and HIV/AIDS</p> <p>b) Reliable baseline information and future program options</p> <p>c) Rationale and justification for LT programs.</p>	<p>a) Low</p> <p>b) Low</p> <p>c) Medium</p>	Population, providers/ health care workers, media, MOH	<p>Armenian Family Planning Consortium, Republican Center for STDs, National Center for AIDS Prevention, Center for Perinatology, Johns Hopkins University: Population Communication Services (JHU/PCS), American University in Armenia (AUA)/ CHSR</p>	<p>UNICEF</p> <p>Oxfam</p> <p>UMCOR</p> <p>UNICEF</p> <p>IRC</p> <p>MSF-Spain</p> <p>(GEORGIA- PHN cooperating agencies)</p>

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
ARMENIA and GEORGIA								
<p>1. "Making health care reform work for us"—one or two intensive and integrated pilots at city or sub-regional levels (suggest three or four contiguous "Hamainks" if "Marz" too big?)</p> <p>(See NOTE, Options Matrix, Armenia IV)</p>	<p>Empowering local jurisdictions to protect the health of their populations. Elements include</p> <ul style="list-style-type: none"> • Understanding rights, roles, and responsibilities under the reform program • Organizing and managing for roles, rights, and responsibilities ("3Rs"), including defining services, facilities management, personnel, training, clinical care, commodities and equipment, quality assurance, financing and local resource generation, etc. • Emphasis on primary health care • Indigenous advocacy for health • Information for decision making (personal health, economic, financial, epidemiological [ICD-10], and management) (see Options Matrix, V.1, 2, 3) • Close coordination with central reform efforts 	Medium to long	<p>Outside MOH and Yerevan, people and HC personnel have little idea what HC reform is or how to deal with it. Area not addressed by WB or other donor but critical to success of reforms.</p> <p>SO 3.2—Improved sustainability of health and social benefits and services. Complements SO1.2—Soundness of fiscal policies and management practices; SO 2.1—Better-informed citizen participation in political and economic decision making; and SO 2.3—More effective, responsible, and accountable local government</p>	<p>Model for sustainable delivery of quality health care services</p> <p>D/G objectives—local empowerment</p>	Medium to high	Public, local officials, and local health care workers	<p>Partnerships (cities, counties, states, community health centers)</p> <p>UNICEF</p> <p>World Bank</p> <p>U.S. National Association of State and Territorial Health Officers (ASTHO)</p> <p>National Center for Health Statistics (NCHS)</p> <p>CDC</p> <p>ANHAIC</p> <p>21st Century Fund</p>	

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
2. Solidifying and strengthening central health information systems	<p>a) Increase capacity of information system for surveillance of both infectious and chronic diseases and for monitoring of health service utilization</p> <p>b) Improve feedback for managerial and medical services. Identify and replicate best practices; facilitate effective health communication to decision makers and media</p> <p>c) Integrate HIS with financial and human resource data to ensure that relevant information is available to decision makers</p>	Medium	Monitoring, surveillance, and response capability is a prerequisite for all reform efforts.	<p>a) TBD</p> <p>b) Regions using epidemiological information for decision making</p>	Medium	Central, regional officials	National Center for Health Statistics (NCHS) ASTHO CDC ANHAIC 21st Century Fund	National Center for Health Statistics (NCHS) ASTHO CDC 21st Century Fund
3. Public health clinical competency	<p>a) Support institutions that train future health providers (including nurses) in public health concepts (including health sciences, epidemiology)</p> <p>b) Support activities that address information gap about smoking, diet, and lifestyles as causes of morbidity and mortality</p>	Medium	Fundamental to health reform is reform of training, stressing evidence-based medicine, primary health care (PHC), and importance of lifestyle decisions as major causes of morbidity and mortality.	<p>a) Continuing medical education (CME)</p> <p>b) Curriculum reform stressing PHC</p> <p>c) Training in and information about lifestyle-oriented disease prevention/-health promotion</p>	Low	Providers, medical and nursing schools, media	AUA UCLA and Erebouni Hospital Nursing Office of Disease Prevention and Health Promotion (ODPHP)—U.S. Department of Health and Human Services U.S. Schools of Public Health/Medicine 21st Century Fund	Office of Disease Prevention and Health Promotion (ODPHP)—U.S. Department of Health and Human Services U.S. Schools of Public Health/Medicine 21st Century Fund

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
4. National policy work	a) Donor coordination b) Licensing and accreditation c) Technical assistance for health care financing	Short to medium	Important components of maximizing donor effectiveness; provider quality improvement; and financing reform	a) Coordinating body identified/staffed b) Licensing/ accreditation criteria and body established c) Adoption by insurance entity; improved payment timeliness	Low	a) Donors and MOH b) MOH and providers c) MOH, insurance entity, Parliament	World Bank Management Unit/MOH WHO Joint Commission International HCFA 21st Century Fund	
5. Other Quality Assurance activities	a) Plan-do-check-act service delivery b) Development of process and outcome measures c) Identify/replicate best practices d) Provider team building (See Options Matrix, Armenia, VII)	Short to medium	Provider practice patterns based on process/outcome measures and protocol-based care using international standards will improve provider competence and quality of care.	a) Quality improvement (QI) plans b) Adoption of evidence-based practices c) Protocol-based care	Low to medium	Providers MOH Insurance entity	Joint Commission International WHO, UNICEF, NCHS, AHCPR, 21st Century Fund	
AZERBAIJAN								
Community/ service provider engagement in shaping health reform	a) Support IEC, capacity building, service, and advocacy skills	Medium	SO 3.2—Improved sustainability of health and social benefits and services. Complements SO1.2—Soundness of fiscal policies and management practices; SO 2.1—Better-informed citizen participation in political and economic decision making; and SO 2.3—More effective, responsible, and accountable local government	Identification of one to two regions and collaborating communities/NGOs Additional demonstration sites	Low to medium	MOH	District CBOs/NGOs	
	b) Expand UNICEF demonstration initiatives based on successful PHC, training, community participation, and cost-recovery activities	Medium			Low	Community health committees	UNICEF/Azerbaijan	
	c) Offer technical assistance around MCH/ RH within a PHC program focus	Short to Medium			Medium	Primary care providers/ public	International NGOs CDC	
	d) Provide technical assistance to HIS around MCH/RH program focus	Medium			Medium	Providers/ public	CDC, NCHS, NGOs	

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
TRANS-CAUCASUS								
Cross-Caucasus health information		Medium	Infectious diseases, drug abuse, alcoholism, and other lifestyle sources of morbidity and mortality are trans-Caucasus in nature and recognize no geographic boundaries. Sharing information will improve surveillance and control of infectious diseases and assist in identifying disease prevention/ health promotion approaches that work.	Formation of cross-Caucasus bodies to define methods to share and use data/ information.	Low	Ministries of Health: Armenia, Georgia, Azerbaijan	CDC WHO NCHS Armenian National Health Information Analytical Center	

1.0 INTRODUCTION and REGIONAL OVERVIEW

1.1 Study Scope and Purpose

BHM International was contracted by USAID to undertake an assessment of the health sector in the three countries of the Caucasus: Armenia, Azerbaijan, and Georgia. The assessment was intended to provide USAID/Caucasus with

- a synthesis and overview of current conditions and activities in the health sector;
- options and recommendations for a health strategy and set of activities that are technically, economically, socially, and politically sound; and
- the rationale, foundation, scope, and future direction for recommended USAID-funded health sector activities for the next five to seven years.

To accomplish the assessment, a five-person Assessment Team spent approximately four weeks in the field making on-site observations, interviewing more than 250 individuals (host authorities, legislators, local governments, members of civil society groups, international donors, national and international nongovernmental organizations, health providers, and patients), and reviewing policy notes, assessments, surveys, evaluations, and other relevant documentation. The team visited health posts, ambulatories, polyclinics, Republican hospitals, specialty hospitals and centers, and privately funded clinics and service points operated by nongovernmental organizations.

This report summarizes the team's findings, conclusions, and recommendations.

1.2 General Background

In the final years of the Soviet Union, the economies and social structures of Armenia, Azerbaijan, and Georgia all experienced growing difficulties. The breakup of the Former Soviet Union (FSU) significantly exacerbated these problems. For example, gross domestic product (GDP) in Georgia, the most severely affected of the three countries, fell by approximately 90 percent between 1991 and 1994. In large part, the economic disruptions reflected the often artificial economic relationships developed by the Soviet Union. When those relationships dissolved, the underlying inefficiencies revealed themselves. The resulting macroeconomic shock led to massive closure of plants, rampant unemployment, and the ruinous decline in government services such as public utilities and in social welfare programs such as health delivery.

In addition, all three countries have experienced costly civil and military strife, most notably in the regions of Nagorno-Karabakh, South Ossetia, and Abkhazia. Finally, natural disasters, especially in Armenia, have aggravated the already enormous burden faced by the three nations.

Against this background, the Caucasus countries have experienced hyperinflation, declines bordering on collapse in social services, and marked reductions in the quality of life enjoyed by their populations. What is surprising is the degree to which each nation has begun to overcome these

difficulties. Official unemployment figures are discouragingly high, but the rate of decline in industrial output is slowing while hyperinflation is now under control. For the last few years, economic growth rates have been positive and relatively substantial; and cease fires have been negotiated among all the warring parties and, with limited exceptions, appear to be holding.

As measured by such casual indices as increased numbers of vehicles on the road, the informal sector of the three countries' economies seems to be expanding but so, too, is income disparity between the "haves" and "have-nots." At best, poverty ratios generally are not improving.

1.3 Health Sector Commonalities

1.3.1 The Systems

The health sectors of the Caucasus nations have been especially imperiled by both pre- and postindependence resource constraints. Because of economic collapse, the governments of the three nations pay for few of the costs of care; rather—sometimes *de jure*, sometimes *de facto*—care for most people is now provided on a fee-for-service basis, with patients bearing the overwhelming share of costs.

The health delivery systems of all three countries are characterized by massive excess capacity and an absence of patients. The Caucasus nations have too many hospitals, too many beds, and too many hospital-based medical specialists. Virtually all facilities are now in disrepair; lack necessary medical equipment, drugs, and supplies; and cannot afford the energy necessary to provide heat and light and to power the minimal medical equipment available. Many facilities now lack running water, effective sanitation or sterilization, continuous electricity or telephone systems.

Overwhelmingly, physicians and related health personnel are hospital-based specialists, too many of whom are inadequately trained. Moreover, because of the economic collapse, the official salaries paid to virtually all physicians and other care providers are inadequate to meet basic living needs, leading to the creation of incentives that have affected provider behaviors in undesirable ways. Even officially salaried physicians often impose "under the table" payments on patients for services rendered. Worse, the goal of maximizing patient payment revenues too often results in the provision of unnecessary, medically inappropriate care.

Despite the overall surplus of physicians, all three countries suffer from an inadequate supply of appropriately trained primary care physicians and primary care services. Primary care providers, who have generally received marginal training, have limited experience as hands-on care givers. Treatment verticality, specialist dependency, and first-tier physicians of dubious competence are ill-advised medically and financially insupportable by the current economies.

1.3.2 Epidemiology

Although the incidence of some infectious diseases such as tuberculosis and STDs has increased in the last several years, epidemiological profiles indicate that cardiovascular diseases, cancers, and other “lifestyle” diseases are the leading causes of morbidity and mortality in the three Caucasus nations. Nevertheless, the medical establishment devotes little attention to disease prevention, health promotion, and lifestyle modification programs, which, in the long run, have the greatest effect on reducing a population’s disease burden. Mental health disorders and injuries (including automobile accidents) appear to be seriously underreported and are undoubtedly high. Serious reproductive and maternal and child health concerns remain in pockets of each of the three republics.

1.3.3 Access and Affordability

Patients who once received services either free or at the cost of an affordable (though often illegal) “tip” now face substantial care costs, especially in relation to income. Out-of-pocket patients’ fees, formal and otherwise, now are thought to account for approximately 80 percent of spending in the health sector. Many patients simply are unable to afford the medical care they need. Moreover, patients often must bear the costs for necessary medical care at the very time when their capacity to earn is most severely diminished as a result of sickness or disease.

1.3.4 Health Information

It is important to note the paucity of and inadequacies in data and information regarding health care facilities and systems and health status and disease burden of the populations of the Caucasus nations. Information necessary for informed decision making is often lacking. Reliable data on costs are limited or nonexistent; reporting discipline is lax; and data element definition too often varies from site to site. Moreover, as informal fee-for-service substitutes for care through government facilities, official epidemiologic data become ever more suspect; many who are ill do not seek care or do so through unofficial and nonreporting channels.

Finally, in all three countries, the health sector as a whole is substantially underfunded *in comparison with the medical needs of the population*. Those funds available to the health care sector continue to be allocated disproportionately to the least cost-effective hospital sector while inadequately supporting cost-effective primary health care. Patient and provider satisfaction with the status quo is low, as is quality of care.

In all three countries, health care—policy, costs and who bears them, access, delivery, utilization, structure—is changing. In some cases, the changes are intentional due to government health care reform efforts supported by the World Bank, the United Nations and other donor programs. Other changes are simply due to a lack of resources. However, even when change is planned and intended, few outside the Ministries of Health and capital cities have any understanding of what those reforms and changes mean. The citizenry, providers, and, indeed, even many units of government at the national, regional, and local levels have no conception let alone comprehension of how they will

organize and work with the new roles, rights, and responsibilities that are the product of reform and change. Absent such information, participants' acceptance of reform goals and implementation approaches can be neither assumed nor provided.

1.4 Important Distinctions

If commonalities in health status and systems among the countries are substantial and important, there are nonetheless two vital distinctions. First, alone among the three, Azerbaijan has displayed little interest in health sector reform. The Azerbaijan Ministry of Health has not responded to the World Bank's offer of assistance to the health sector and has failed to adopt international protocols for the treatment of tuberculosis, HIV/AIDS, or STDs. Among the three, only the government of Azerbaijan has created barriers to the registration and funding of domestic NGOs and has avoided substantive changes in the financing, provision, and delivery of care, preferring to maintain a centralized albeit ineffective authority.

In contrast, the governments, Ministers, and Ministries of Health of both Armenia and Georgia have actively embraced and are providing leadership in health sector reform. Both countries are developing social insurance programs in health, exploring alternative approaches to physician licensure and facility accreditation, moving to enhance health information systems, and undertaking efforts to decentralize operational authority and responsibilities from the central government to regional and local authorities.

The second distinction affects USAID's potential activities in the area. The United States Freedom Support Act's "Section 907" severely limits direct USAID linkages with or support to the government of Azerbaijan. Together, these two factors suggest that USAID's options for health sector activities in Azerbaijan may be more circumscribed than in Armenia or Georgia.

1.5 A General Approach

Current funding levels are inadequate for the health care needs of all three countries, and additional resources will not be available for the health sector in the near future. Therefore, in the near term, the most reasonable approach calls for markedly increasing the productivity of current resources by eliminating present inefficiencies and redirecting savings to more efficient uses and actively engaging the people, providers, and authorities in "operationalizing" health care reform at the local or community and regional levels. While realizing savings will be neither easy nor quick, opportunities present themselves in a wide variety of venues, including wasteful "vertical" programs; excessive numbers of underpaid, low-quality, undertrained, and underused doctors and health care workers; an excess of underused beds and facilities; medically inappropriate hospitalizations and specialty referrals; and inefficient disease management practices.

Georgia and Armenia, with World Bank and WHO assistance, understand the theory of releasing resources to be used more productively elsewhere. They have committed to moving from the current emphasis on hospital-based tertiary and specialty care to more cost-effective and integrative

preventive and primary care. If they are to make the necessary shift, however, they will have to undertake enhanced training of primary care providers in a wider range of medical practices; inform the public that quality care does *not* require a hospital setting, a specialist, and a drug prescription; and assure providers a sufficient patient load to achieve financial security. All parties in the reform effort need to reach implicit agreement regarding roles, rights, responsibilities, and expectations.

The present patient payment system is inequitable and inefficient. The Assessment Team supports a risk-pooling mechanism through insurance. Insurance—whether based on “solidarity”-based risk-sharing concepts (as are the social insurance schemes emerging in Armenia and Georgia) or some other risk-pooling insurance approach—has the potential of reducing net societal costs as well as protecting participants from the economic risks of the catastrophic costs of care.

Finally, the Assessment Team believes that an effective health information system (HIS) is necessary to inform medical and health policy decision making, to build outcome-based treatment protocols, and to maximize efficiency in allocating resources within the health care system. The need for better information applies to all levels of health care and health care management. Importantly, such an HIS is “interactive”—providers do not simply enter data for the use of some distant central authority, but, in return, they receive information for their own use.

These four reform elements—identifying and recovering inefficiently used resources; using recaptured resources to support high-quality, cost-effective, medically appropriate preventive and primary care; developing risk-pooling insurance mechanisms; and building a health information system useful to all participants—are the components of the strategy the Assessment Team recommends to USAID. But this strategy requires that reform efforts mobilize, support, and gain the support of local and regional populations, providers, and authorities. It is they who must translate reform goals into actions, and it is they who will have to take on the new roles, rights, and responsibilities that follow.

1.6 Options

As part of its field work, the Assessment Team reviewed and considered earlier USAID strategies for information, education, and communications (IEC) activities in support of a family planning strategy. The Assessment Team believes that the IEC strategy in family planning is well developed and sound. Its fundamental approach is consistent with the team’s findings of the general lack of information available to the peoples of the Caucasus regarding their health care systems and options. While the team explored a number of family planning options, it ultimately reaffirmed the IEC strategy for the short to medium term.

In examining other health sector options for USAID’s consideration, the Assessment Team considered a wide array of options, including nutrition, water supply/sanitation, and facility rehabilitation. The team weighed the potential options against a variety of factors. These factors, illustrated in Table 1, are meant to be pragmatic measures: Can it be done? Would it make a difference—to whom, and is that entity likely to be supportive? What burden would implementation impose on the USAID Mission? What is the “bang for the buck”? In its discussion, the Assessment

Team rejected proposals that were judged to “fail” too many of these informal tests. Thus, for example, the team does not recommend major hospital rehabilitation options.

Table 1
Health Sector Options: Criteria Filter

For all three countries, the team reviewed each intervention option in accordance with predetermined and standard selection criteria, which, as with any set of criteria, are neither perfect nor exhaustive. They do, however, reflect the Assessment Team’s understanding of the Mission’s programmatic and management interests and concerns.

- Potential impact of the option. Would it address a significant disease burden and/or a significant deficiency in the health delivery or finance system?
- How great a management burden would it impose on the USAID Mission?
- Are the anticipated results easily measurable, i.e., does a reasonable baseline already exist or can it be readily generated and can practical progress indicators be generated?
- Does there appear to be reasonable support from national and/or local stakeholders?
- Are there reasonable prospects for program sustainability—financial and systemic?
- Are there reasonable prospects for program replicability to other regions, nationally, or trans-Caucasus?
- Does the proposed option support Mission priorities in democracy and governance, privatization, and economic restructuring?
- Does the option promote regional linkages?
- Can USAID expect the program design and implementation mechanism to be sufficiently flexible and adjust to changes in needs, focus, timing, magnitude? Is it reasonably immune from political, economic, and environmental factors?
- Can USAID anticipate measurable results within three years?
- Is the option likely to assist the poor either directly or indirectly?
- Can the option reasonably be expected to be cost-effective when measured in terms of impact per unit cost?
- Does the proposed program fill a gap left by other donors or NGOs, and does it complement their activities?

The next section of this report, the Options Matrix, both summarizes the team’s recommendations and lists additional options. The breadth of recommendations and options reflects the dire straits of each country’s health system. Every component of the health sector is in need of additional support and strengthening. At present, few possible investments in the health sector would be unproductive. The Assessment Team strongly encourages further direct discussions among USAID, NGOs, potential implementing partners, and target entities before making final selections among available options.

For various interventions, the Assessment Team notes that a range of potential implementing partners may be possible, only some of which are identified in the Options Matrix. The burden imposed on the USAID Mission may also vary substantially depending on the implementing partner or mechanism. Thus, for example, a partnership achieved under the aegis of USAID's new Health Partnership Program is likely to call for less USAID Mission involvement than a Mission-directed contract.

1.7 Rationale for USAID Health Activities

USAID has been a major donor in the Caucasus region for several years, focusing on democratization and governance and privatizing economic institutions. USAID health-related programs have concentrated on humanitarian aid, hospital partnerships, family planning, and health information systems. As the three economies' rate of growth turns positive, however, it is appropriate that USAID shift the focus of its health programs to developmental support.

The underlying thrust of our recommendations, like virtually *all* the suggested options, is to engage the general public, health care providers, and local, subnational, and central decision makers more broadly in direct and indirect information, education, and communication activities for the purpose of considering future health sector roles, rights, responsibilities, and expectations. Stated simply, several of the options foster an enabling environment for steps toward health care. The team believes that failure to secure the informed consent of the set of affected parties—the population, providers, and decision makers at all levels—will not only put at risk reform in the health sector but also threaten popular confidence in the broader economic, political and social reforms in which USAID is involved. And, certainly, absent popular support for reform and demand for enhanced health care quality, service delivery will remain inefficient, grow increasingly inequitable, and enhance opportunities for corruption, incompetence, and poor-quality service.

What impact can USAID expect and where does USAID's comparative advantage lie given both the substantial investments already made by the World Bank and the numerous health activities being pursued by national and other international agencies and nongovernmental agencies? The Assessment Team believes that modest investments by USAID hold the potential for major influence because they can serve as *change agents*. The approaches recommended here go to the heart of change; they secure "buy in" by participants at the national and subnational levels.

Finally, the Assessment Team has suggested several options designed to increase policy analysis and the capacity to develop data for decision making. These areas of potential investment in both Armenia and Georgia support similar investments by the World Bank *but also* serve as a counterbalance to some activities that have inadvertently engendered an inadequate or narrow policy perspectives among recipients. Thus, the Assessment Team stresses that modest USAID support could substantially expand policy analysis capacity and the "policy space" available for discussion and consideration in Armenia and Georgia at both the national and especially *at the subnational level*, furthering democratic restructuring and governance as well as health reform objectives.

1.8 Recommendations

While the range of options suggested for USAID consideration is substantial, the Assessment Team assigns highest priority to two areas that reflect USAID's comparative advantage and, with some variation, that apply to all three countries.

- Support experimental demonstrations—with analytic/evaluative capacity to determine what works, what does not, and why—at the regional and/or local level to test alternative patterns of health care delivery, explore viable financing mechanisms, and develop new rights and responsibilities among citizens, providers, and responsible authorities.

In Georgia and Armenia, devolution of authority from the central to regional and local governments is underway. National health care reforms are underway, including redefinition of basic benefits and eligibility, a decreased central government role in financing, establishment of nascent paristatal health insurance entities, exploration of licensure and accreditation, and preliminary steps to shift provision of care from hospitals to more cost-effective primary care providers. At the same time, at the subnational level, the public is still grappling with the advent of fee-for-service medicine and the effective termination of free care. Health care workers who remain in the field are floundering with the implications of reform, inadequate incomes, and a lack of resources while local and regional authorities are trying to understand the implications of change and how they can respond.

For all the policy-making leadership at the center, it is at the regional and local levels where change and reform will become operational and be made “real”; but it is also at the regional and local levels where understanding is weakest. Hence, it is the regional and local levels where USAID support for technical assistance and information, education, and communication among participants—the public, providers, and authorities responsible for operating the health care system—could have a substantial impact on the new structures of health care. Moreover, benefits would not be limited to subnational areas. Absent sound information on local and regional implementation activities, issues, successes, and difficulties, central policy making will lack the necessary “feedback” for mid-course change and correction. As the Georgian Minister of Health, in speaking of his highest priority, put it during discussions with the Assessment Team, “I need information and feedback that helps me make the right policy decisions and actions.”

In Azerbaijan, the Ministry of Health has taken virtually no leadership role regarding change and has largely avoided reform. UNICEF, with Ministry approval, has instituted a modest program of primary care demonstrations that are providing training, securing community participation, and testing cost-recovery financing reforms. The efforts hold the potential for broader expansion and development of models for the future when government interest in health reform eventually emerges. Moreover, pressures brought by local efforts may help shift the Ministry of Health's orientation toward reform. In keeping with its interests in democratization and governance, modest USAID funding could substantially expand the number of UNICEF demonstration sites, promote patient rights, and help educate the public and providers regarding roles and responsibilities.

- Continue and expand support of decision-oriented health information system development.

The health information systems of the Caucasus states are characterized by poor reporting, inadequate case definition, lack of timeliness, and, as a result, information that is not usable in policy making or clinical practice. Good information is vital to the direction, control, and operation of health care and the health care system. Timely, reliable epidemiological data are crucial to the identification of new illness and disease threats, to the redirection and balancing of finite resources to meet the burden of illness, and to monitoring the effectiveness, efficiency, and performance of the health care system as a whole and its constituent parts. Outcome data are pivotal to science-based medicine and the identification, development, and spread of effective clinical practice. Without such data, decisions regarding appropriate and efficient management of limited resources will be uninformed, inefficient, and wasteful.

In addition to the importance of health information for the health care systems of the three countries, information sharing among the nations is desirable. Joint interests and activities in health information among the Caucasus nations provides a neutral, technical focus around which broader contacts may gradually develop.

The team's recommendations are summarized in Section 2.1 of the Options Matrix, which is followed in Section 2.2 by additional options presented for USAID's consideration.

2.0 OPTIONS MATRIX

2.1 Recommendations

ARMENIA, GEORGIA, and AZERBAIJAN								
PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
Reproductive health (including STDs and HIV/AIDS)	a) Broad IEC effort aimed at clients and health care providers b) Reproductive health survey c) New evaluation to determine effectiveness of current donor activities and design to finalize LT program focus	a) Short b) Short to medium c) Medium + TBD	Congressional earmark, high morbidity and mortality rates, low level of awareness among both population and providers, increase in STDs and HIV/AIDS SO 3.2—Improved sustainability of health and social benefits and services.	a) Greater knowledge of reproductive health, STDs, and HIV/AIDS b) Reliable baseline information and future program options c) Rationale and justification for LT programs.	a) Low b) Low c) Medium	Population, providers/ health care workers, media, MOH	Armenian Family Planning Consortium, Republican Center for STDs, National Center for AIDS Prevention, Center for Perinatology, Johns Hopkins University: Population Communication Services (JHU/PCS), American University in Armenia (AUA)/ CHSR	UNICEF Oxfam UMCOR UNICEF IRC MSF-Spain (GEORGIA- PHN cooperating agencies)

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
ARMENIA and GEORGIA								
<p>1. "Making health care reform work for us"—one or two intensive and integrated pilots at city or sub-regional levels (suggest three or four contiguous "Hamainks" if "Marz" too big?)</p> <p>(See NOTE, Options Matrix, Armenia IV)</p>	<p>Empowering local jurisdictions to protect the health of their populations. Elements include</p> <ul style="list-style-type: none"> • Understanding rights, roles, and responsibilities under the reform program • Organizing and managing for roles, rights, and responsibilities ("3Rs"), including defining services, facilities management, personnel, training, clinical care, commodities and equipment, quality assurance, financing and local resource generation, etc. • Emphasis on primary health care • Indigenous advocacy for health • Information for decision making (personal health, economic, financial, epidemiological [ICD-10], and management) (see Options Matrix, V.1, 2, 3) • Close coordination with central reform efforts 	Medium to long	<p>Outside MOH and Yerevan, people and HC personnel have little idea what HC reform is or how to deal with it. Area not addressed by WB or other donor but critical to success of reforms.</p> <p>SO 3.2—Improved sustainability of health and social benefits and services. Complements SO1.2—Soundness of fiscal policies and management practices; SO 2.1—Better-informed citizen participation in political and economic decision making; and SO 2.3—More effective, responsible, and accountable local government</p>	<p>Model for sustainable delivery of quality health care services</p> <p>D/G objectives—local empowerment</p>	Medium to high	Public, local officials, and local health care workers	<p>Partnerships (cities, counties, states, community health centers)</p> <p>UNICEF</p> <p>World Bank</p> <p>U.S. National Association of State and Territorial Health Officers (ASTHO)</p> <p>National Center for Health Statistics (NCHS)</p> <p>CDC</p> <p>ANHAIC</p> <p>21st Century Fund</p>	

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
2. Solidifying and strengthening central health information systems	<p>a) Increase capacity of information system for surveillance of both infectious and chronic diseases and for monitoring health service utilization</p> <p>b) Improve feedback for managerial and medical services. Identify and replicate best practices; facilitate effective health communication to decision makers and media</p> <p>c) Integrate HIS with financial and human resource data to ensure that relevant information is available to decision makers</p>	Medium	Monitoring, surveillance, and response capability is a prerequisite for all reform efforts.	<p>a) TBD</p> <p>b) Regions using epidemiological information for decision making</p>	Medium	Central, regional officials	National Center for Health Statistics (NCHS) ASTHO CDC ANHAIC 21st Century Fund	National Center for Health Statistics (NCHS) ASTHO CDC 21st Century Fund
3. Public health clinical competency	<p>a) Support institutions that train future health providers (including nurses) in public health concepts (including health sciences, epidemiology)</p> <p>b) Support activities that address information gap about smoking, diet, and lifestyles as causes of morbidity and mortality</p>	Medium	Fundamental to health reform is reform of training, stressing evidence-based medicine, primary health care (PHC), and importance of lifestyle decisions as major causes of morbidity and mortality.	<p>a) Continuing medical education (CME)</p> <p>b) Curriculum reform stressing PHC</p> <p>c) Training in and information about lifestyle-oriented disease prevention/health promotion</p>	Low	Providers, medical and nursing schools, media	AUA UCLA and Erebouni Hospital Nursing Office of Disease Prevention and Health Promotion (ODPHP)—U.S. Department of Health and Human Services U.S. Schools of Public Health/Medicine 21st Century Fund	Office of Disease Prevention and Health Promotion (ODPHP)—U.S. Department of Health and Human Services U.S. Schools of Public Health/Medicine 21st Century Fund

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
4. National policy work	a) Donor coordination b) Licensing and accreditation c) Technical assistance for health care financing	Short to medium	Important components of maximizing donor effectiveness; provider quality improvement; and financing reform	a) Coordinating body identified/staffed b) Licensing/ accreditation criteria and body established c) Adoption by insurance entity; improved payment timeliness	Low	a) Donors and MOH b) MOH and providers c) MOH, insurance entity, Parliament	World Bank Management Unit/MOH WHO Joint Commission International HCFA 21st Century Fund	
5. Other Quality Assurance activities	a) Plan-do-check-act service delivery b) Development of process and outcome measures c) Identify/replicate best practices d) Provider team building (See Options Matrix, Armenia, VII)	Short to medium	Provider practice patterns based on process/outcome measures and protocol-based care using international standards will improve provider competence and quality of care.	a) Quality improvement (QI) plans b) Adoption of evidence-based practices c) Protocol-based care	Low to medium	Providers MOH Insurance entity	Joint Commission International WHO, UNICEF, NCHS, AHCPR, 21st Century Fund	
AZERBAIJAN								

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
Community/ service provider engagement in shaping health reform	a) Support IEC, capacity building, service, and advocacy skills	Medium	SO 3.2—Improved sustainability of health and social benefits and services. Complements SO1.2—Soundness of fiscal policies and management practices; SO 2.1—Better-informed citizens' participation in political and economic decision making; and SO 2.3—More effective, responsible and accountable local government	Identification of one to two regions and collaborating communities/NGOs Additional demonstration sites	Low to medium	MOH	District CBOs/NGOs	
	b) Expand UNICEF demonstration initiatives based on successful PHC, training, community participation, and cost-recovery activities	Medium			Low	Community health committees	UNICEF/Azerbaijan	
	c) Offer technical assistance around MCH/ RH within a PHC program focus	Short to Medium			Medium	Primary care providers/ public	International NGOs CDC	
	d) Provide technical assistance to HIS around MCH/RH program focus	Medium			Medium	Providers/ public	CDC, NCHS, NGOs	

PRIORITY AREA	INTERVENTIONS	TIME FRAME	JUSTIFICATION AND RATIONALE	INTERMEDIATE RESULTS	MISSION OVERSIGHT	TARGET	POSSIBLE PARTNERS ARMENIA	POSSIBLE PARTNERS GEORGIA AND AZERBAIJAN
TRANS-CAUCASUS								
Cross-Caucasus health information		Medium	Infectious diseases, drug abuse, alcoholism, and other lifestyle sources of morbidity and mortality are trans-Caucasus in nature and recognize no geographic boundaries. Sharing information will improve surveillance and control of infectious diseases and assist in identifying disease prevention/ health promotion approaches that work.	Formation of cross-Caucasus bodies to define methods to share and use data/ information.	Low	Ministries of Health: Armenia, Georgia, Azerbaijan	CDC WHO NCHS Armenian National Health Information Analytical Center	

2.2 Options

2.2.1 Armenia

Impact Time Frames
 Short=1 to 18 months
 Medium=18 to 36 months
 Long=More than 36 months

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
I.A. National policy framework for health reform	Technical advisory support to					
	1.a. Develop an effective legislative framework governing health reform	Medium	a. Initiate dialogue among stake-holders	Low	Armenian Parliament	WHO Public Advisory Unit World Bank
	b. Coordinate donor efforts in health reform	Short	b. Coordinating body identified and staffed	Low	MOH	
	c. Identify best practices	Short	c. Periodic forum for sharing best practices	Low	SHA MOH	
	2. Improve implementation of PHC to integrate vertical programs into broader-based PHC	Medium to long	Successful pilots of comprehensive care at Marz level	Low	MOH	Schools of Public Health (UCLA, Hopkins, etc.)
	3. Support policy and legislation toward licensing and accreditation of providers/facilities demonstrating efficient and effective services	Medium	Licensing body established Criteria for licensing and accreditation established	Low	Parliament MOH SHA	JCI HCFA

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
I.B. National policy for health care financing	Technical advisory support to improve health care financing (including BBP, accounting, insurance, management)	Short	Adoption by insurance entity/government; more timely provider payment	Low	MOH: central, regional, and facility levels SHA	World Bank Management Unit/MOH HCFA
II. Rights and responsibilities under the Basic Benefits Plan (BBP)	1. Inform providers and public about health reform packages through public relations activities	Short	Consensus on rights and responsibilities	High	MOH: all levels	CBOs International/ local NGOs and media
	2. Create platforms for discussion on improved access to service	Short	Representative groups formed to give feedback	High	Armenian public	
III. STD/HIV/AIDS and reproductive health initiatives	1. Support broad IEC effort and social marketing around reproductive health, including STD/HIV/AIDS prevention	Short	Forum of major IEC players to pool information and agree on targets	Medium	Armenian CBOs/ NGOs	Armenian Family Planning Consortium
	2. Ensure that delivery systems anticipate and meet service demand for supplies and equipment	Medium	Monitoring body for procurement and distribution of supplies and equipment	High		Republican Center for STDs National Center for AIDS Prevention Center for Perinatology
	3. Capacity building for operational research in reproductive health	Medium	Identification by AUA of key process, outcome research areas, and participants	Medium	MOH	Johns Hopkins University: Population Communication Services (JHU/PCS) American University in Armenia (AUA)/ CHSR

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
IV. Community and health service provider engagement in health reform (see NOTE below)	Use reproductive health (RH) as a thematic nucleus in one or two Marzes for building demand for PHC	Medium	Identification of one or two Marzes and collaborating NGOs	High	Oxfam/Save the Children-related community groups	Oxfam Save the Children UNICEF World Bank
V. Effective integration of - Health Information System (HIS) - Financial Information System (FIS) - Management Information System (MIS)	<p>1. Increase capacity of information system for surveillance of both infectious diseases (TB, STDs, etc.) and chronic noninfectious diseases and for monitoring of health service utilization</p> <p>2. Improve feedback loops for managerial and medical services upward to national level and downward to the district level for timely responses and positive health impact on the population; identify and replicate best practices; facilitate effective health information communication to decision makers and media</p> <p>3. Integrate into HIS financial and human resource data as well as clinical and epidemiological data to ensure that relevant information is available to decision makers</p> <p>4. Facilitate cross-Caucasus border health information sharing to improve surveillance and control of infectious diseases (TB, STDs, HIV/AIDS, malaria, etc.) in the case of potential or actual threat</p>	<p>Medium</p> <p>Medium?</p> <p>Medium to long</p> <p>Medium</p>	<p>1. ANHAIC-approved functional HIS system</p> <p>2. Identifiable feedback loops in pilot areas</p> <p>3. Successful examples at Marz and regional levels of data-driven decision making</p> <p>4. Formation of cross-Caucasus bodies to define methods to share and use data</p>	<p>Low</p> <p>Low</p> <p>Medium</p> <p>Low</p>	<p>MOH: regional level</p> <p>3 and 4: Data Analysts/ Ministries of Health: Armenia Azerbaijan Georgia</p>	<p>CDC, NCHS, ANHAIC</p> <p>CDC, WHO, ICRC, IFRC</p> <p>3 and 4: CDC/WHO, NCHS, Armenian National Health Information Analytical Center</p>

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
VI.A. Competency in public health concepts	1. Support institutions that train future health providers in public health concepts (including health sciences, epidemiology)	Medium	1. Continuous enrollment of providers in educational programs	Medium to high	Health practitioners	American University in Armenia's Center for Health Sciences Research and MPH program
VI.B. Competency in clinical nursing (reorientation toward decreased medicalization and more PHC/public health)	2. Support activities that address information gap about smoking, diet, and lifestyles as causes of morbidity and mortality	Long	2. Strategies and targeted audiences identified for lifestyle messages	Medium		
	3. Support institutions that train nurses in public health concepts (including health sciences, epidemiology)	Long	3. Enrollment and graduation of nurses in improved programs	Low to medium	Nurses	UCLA and Erebouni Hospital nursing curriculum
VII. Establish quality health care initiatives	1. Training in a. Team building b. Evidence-based medicine and standardization of science-based practice c. Plan-do-check-act service delivery d. Process and outcome indicators to measure and manage activities	Short to medium	Quality Improvement (QI) workshops or seminars resulting in action plans by participants to demonstrate QI concepts at their level	Low to medium	MOH/SHA: central and regional levels	Joint Commission International (US), WHO, UNICEF Zdrav/Reform Project, AHCPR
	2. Coordinate and facilitate management training in public health skills and attitudes to guarantee that decision making is current, promotes prevention, and remains customer-oriented	Short	Management curriculum concepts defined	Low	MOH: central level	Joint Commission International (US), WHO, UNICEF
	3. Support patient feedback solicitation and appeals mechanisms at service delivery points	Medium	Patient survey tools developed	High	MOH: regional level	UNICEF, Relevant health-providing facilities

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
	4. Seek best practices in managerial and medical activities to a. Bring them to national/regional attention b. Replicate c. Reward for excellence	Long	Repository or active solicitation of best practices	Medium to high	MOH	UNICEF

NOTE:

The choice of RH is particularly relevant given the need to resolve the systemwide phenomenon of verticality in health systems as represented by the dichotomy between STD and AIDS service programs. The benefits of successful integration of these related components will eventually accrue to any future efforts seeking to resolve verticality in other programs such as infectious disease (e.g., TB).

- Employ RH through PHC service delivery to address health system issues from central through Marz and health facility levels by focusing on weak health system aspects, including reorientation and improvement of the management of Marz, facility income, expenditure portfolio, training of health providers (including nurses, midwives, and other health workers) to improve case management practice and rational drug prescription and training health workers in customer sensitivity and improved patient contact for preventive/health education counseling, etc. Provide a monitoring mechanism theme to insure that regional health authorities as well as PHC facility managers (1) use the information collected and (2) analyze it for decision making and problem solving at the district level.
- Use model to ensure that Marz health authorities are able to adapt their health system to PHC and to orient health providers accordingly, including formulation, dissemination, and enforcement of new standards for clinical protocols (in collaboration with the relevant departments of MOH).

2.2.2 Georgia

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
I. National policy framework for health reform	Technical advisory support in					
	a. Coordination of donor efforts, including sharing/dissemination of best practices	Short	a. Initiate dialogue among stakeholders	Low	MOH	WHO Public Advisory Unit
	b. Developing and implementing an effective legislative framework governing health reform	Medium	b. Coordinating body identified and staffed	Low	Parliamentary Committee for Health and Social Affairs MOH	World Bank WHO Advisory Unit HCFA Curatio
	c. Improving financial systems and regulatory aspects, including insurance, Basic Benefits Package (BBP), accounting systems, and management at rayon level	Short	c. Periodic forum for sharing best practices	Low	MOH and SMIC	World Bank HCFA
	2. Foster central-level acceptance and dissemination of internationally accepted clinical and public health protocols for infectious and chronic diseases/conditions	Short to medium		Low to medium	MOH, schools of medicine/ nursing	WHO ICRC AHCPR International Organizations

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
II. Community and service provider engagement in health reform through public health priority theme focus (see NOTE)	1. Support one to two additional UNICEF models focusing on community participation, health management information, PHC, and health care financing	Short	Identification of 1 to 2 regions and collaborating NGOs	Low to medium	Local NGOs MOH	UNICEF
	2. Improve effective community demand and participation in district-level reform efforts around thematic nucleus of RH/MCH	Short to medium		Low to medium	MOH, district/regional authorities, Local NGOs/CBOs	Oxfam UMCOR UNICEF IRC MSF-Spain
III. Effective integration of <ul style="list-style-type: none"> • Health Information System (HIS) • Financial Information System (FIS) • Management Information System (MIS) 	1. Increase capacity of the information system for surveillance of both infectious diseases (TB, STDs, etc.) and chronic noninfectious diseases; for monitoring health service utilization; and for quality of care at regional level	Medium	1. Functional HIS system	Low	MOH: regional level	Zdrav/Reform CDC
	2. Improve feedback loops for financial, managerial, and medical services upward to national level and downward to the district level for timely responses and positive health impact on the population	Medium	2. Identifiable feedback loops in pilot areas	Low	MOH/SHA: central and regional levels	World Bank CDC HCFA IFRC ICRC
	3. Facilitate MOH coordination of donor activities and allocation of resources for HIS	Medium	3. Successful examples at Marz and regional levels of data-driven decision making	Medium	MOH	

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
	4. Facilitate cross-Caucasus border health information sharing to improve surveillance and control of infectious diseases (TB, STDs, HIV/AIDS, malaria, etc.) in the case of potential or actual threat	Medium	4. Formation of cross-Caucasus bodies to define methods to share and use data	Low	MOHs of three Caucasus republics	CDC World Bank NCHS
	5. Seek best practices in managerial and medical activities to a. Bring them to national/regional attention b. Replicate c. Reward for excellence	Medium to long	Periodic forum for sharing best practices	Low to moderate	MOH/SHA: national and regional levels Providers	Schools of Public Health AHCPR
	6. Facilitate training in effective health information communication, including production of graphs, publication of concise and timely health bulletins, and development of skills for communicating to decision makers, the press, and the mass media	Short		Low	Data analysts	CDC/WHO MOH's NMLC NCHS
IV. Improve public health understanding	1. Support institutions that train future health providers in public health concepts (including health sciences, epidemiology) 2. Support activities that address information gap about smoking, diet, and lifestyles as causes of morbidity and mortality	Medium Long	1. Continuous enrollment of providers in educational programs 2. Strategies and targeted audiences identified for lifestyle messages	Low to medium Low to medium	Health practitioners Georgian people MOH Health practitioners	Emory University: Rollins School of Public Health DHHS Office of Disease Prevention and Health Promotion Schools of public health

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
V. Establish quality health care initiatives	1. Provide training in a. Team building b. Evidence-based medicine and standardization of science-based practice c. Plan-do-check-act service delivery d. Process and outcome indicators to measure and manage activities	Short to medium	Quality Improvement (QI) workshops or seminars resulting in action plans by participants to demonstrate QI concepts at their level	Low to medium	MOH: central and regional levels Providers	Joint Commission WHO Zdrav/Reform Project
	2. Coordinate and facilitate management training in public health skills and attitudes to guarantee that decision making remains current, promotes prevention, and is customer-oriented	Short	Management curriculum concepts defined	Low	MOH: central level	Joint Commission WHO Emory-Tbilisi State
	3. Support patient feedback solicitation and appeals mechanisms at service delivery points	Medium	Patient survey tools developed	High	MOH: regional level	Health facilities
	4. Seek best practices in managerial and medical activities to a. Bring them to national/regional attention b. Replicate c. Reward for excellence	Long	Repository or active solicitation of best practices	Medium to high	MOH	To be determined

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
VI. Facilitate prioritization and implementation of public health issues	1. Collaborate with institutions and agencies that disseminate health prevention/promotion standards to providers and monitor implementation of correct practices	Medium to long	Improved information dissemination	Medium to high	MOH/SHA Medical schools NGOs	Schools of public health
	2. Support central and delivery points where traditional "vertical" services are integrated into PHC initiatives to allow HORIZONTAL care and where IEC activities are effectively implemented	Medium to long	Reduced number of vertical programs/providers	Medium to high	NGOs MOH Providers	Institute of Pulmonology and Tuberculosis
	3. Facilitate prioritization of public health activities through institutional support of proper use of health statistics; intervene where existing disease burden is high or sentinel systems signal need for urgent action	Medium to long	Targeting of public health expenditures linked to disease burden	Medium to high	MOH	NGOs Schools of public health CDC AHCPR NCHS

NOTE:

* *Options for implementation mechanisms:* The overall district model(s) should be funded through and managed by UNICEF/Georgia, which has been piloting similar activities in Georgia since the mid-1990s. UNICEF/Georgia has a close working relationship with the World Bank, MOH, and other actors. Subcomponents would then be subcontracted by UNICEF to its implementing partners. Hence, the community development IEC activities focusing on RH should be implemented by a community-based group (CBO) already operating in the targeted model district(s), or the project implementers should create a sustainable community structure that can continue the advocacy and participatory management of the health care system. Selection criteria for the chosen district(s) should include consideration for the vulnerability of the region (in turn based on the proportion of vulnerable groups residing in it as well as risk-mapping exercises). Willingness and motivation among district authorities should also be an important selection criterion. To the extent possible and in close consultation with UNICEF before final district selection, USAID's investment should best be placed in districts where other NGOs/donors have already undertaken a focused set of interventions similar to the activities proposed above. This may include (but not be limited to) selection of districts such as Tslenjikha where MSF-Spain is implementing a promising project focusing on improving the facility-based health care delivery quality/coverage, districts where OXFAM has already created community-based groups (even if they initially rallied around other themes such as disability, credit/savings groups, women's rights, etc.), and/or districts where the British Know-How Fund may start implementing its training-of-trainers for General Practitioners/Family Physicians. Funding support by USAID to these international NGO activities is not a necessity, but should funding constraints appear, it would be advantageous (and less burdensome to the USAID Mission) simply to have UNICEF conclude yet another subagreement with the international NGO as its implementing partner in the chosen district(s).

2.2.3 Azerbaijan

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
I. Indigenous advocacy through civil society and NGOs around primary health care NOTE: Primary health care as an agent for community mobilization, empowerment, and participation to serve community needs	R E P R O D U C T I V E H E A L T H	1. Support capacity building, service, and advocacy skills among indigenous health/human rights NGOs	Medium	1. Needs assessment of service and advocacy skills by NGOs	Low	OSI/Soros ISAR, MCI grantees
		2. Implement national health-focused IEC/social marketing campaign to improve choices for men, women, and adolescents	Medium to long	2. Collation of materials and methods developed and deemed effective for a marketing campaign	Low	1.2-1.3 Johns Hopkins University: Population Communication Center
		3. Use partnerships at national/community levels for IEC to promote knowledge about STD/HIV/AIDS prevention**	Medium to long	3. Mechanism to coordinate partnership activities in IEC	Low	
II. Community/service provider engagement in shaping health reform	1. Support IEC, capacity building, service, and advocacy skills	Medium	Identification of 1 to 2 regions and collaborating NGOs	Low to medium	MOH	District CBOs/NGOs
	2. Expand UNICEF demonstration initiatives based on successful PHC, training, community participation, and cost-recovery activities	Medium	Additional demonstration sites	Low	Community health committees	UNICEF/Azerbaijan
	3. Offer technical assistance around MCH/ RH within a PHC program focus	Short to medium		Medium	Primary care providers/ public	International NGOs CDC
	4. Provide technical assistance to HIS around MCH/RH program focus	Medium		Medium	Providers/ public	CDC, NCHS, NGOs

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
III. Subnational initiatives to improve quality of health care	<i>Within UNICEF model:</i> 1. Solicit patient feedback and appeals mechanisms at service delivery points	Medium	1. Development of patient survey tools	Low to medium	Regional health providers and officials	UNICEF and associated community health committees
	2. Promote and disseminate patient rights and responsibilities	Short	2. Consensus on rights and responsibilities	Low to medium		
	3. Seek best practices in managerial and medical activities to a. Bring them to national/regional attention b. Replicate c. Reward for excellence	Long	Periodic forum on best practices		MOH: Armenia, Azerbaijan, and Georgia	Local NGOs International organizations
IV. HIS as national and regional public health early warning system	1. Ensure legislative support for regulation, inspection, and enforcement of public health measures where HIS indicates potential/actual public health threat	Medium	Awareness among legislators of the emerging needs for health of the public			
	2. Facilitate cross-Caucasus information sharing to improve cross-border strategies for surveillance and control of infectious disease	Long	Formation of cross-Caucasus bodies to define methods to share and use data		Governments and MOHs: Armenia, Azerbaijan, and Georgia	ANAHIC-Armenia MOH/Georgia-HIS CDC WHO UNICEF
	3. Collaborate to ensure that the MOH approves and supports internationally accepted disease protocols, including WHO protocol for TB	Medium	Information and education campaign targeted at high-level decision makers			MSF-Belgium ICRC WHO
	4. Support an epidemiological notification system for rapid reporting of public health emergencies	Short to medium	Forum of NGOs and interested parties in methods for rapid response systems		MOH IO/NGOs	

HEALTH POLICY STRATEGY	INTERVENTIONS	IMPACT TIME FRAME	INTERMEDIATE RESULTS	USAID/ CAUCASUS MISSION OVERSIGHT	TARGETED FOR CHANGE	IMPLEMENTING PARTNER/ACTOR (possible/potential)
V. Strengthen coordination of NGOs, IO, and UN agencies	1. Support IO/NGO health survey statistics for information sharing, planning, and avoiding duplication 2. Increase leverage on the MOH to adopt national strategies, including TB management, food fortification, and national surveillance sentinel system	Short Short to medium	1. Repository of survey and statistics on health 2. Information and education campaign targeted at high-level decision makers			
VI. Introduce public health concepts	Reorient medical/health curricula to emphasize RH, PHC, preventive/ community-based health care delivery, and human/patient rights		Definition of key graduate curriculum concepts in PHC/RH and implementors			Partnership with U.S.-based institution and one Azerbaijani institution (including secondary school if possible)

**** NOTE:**

Options for implementation mechanisms:

(1) The entire IEC/service component should be funded through an existing international NGO already involved in civil society (e.g., ISAR or OSI/Soros) willing/able to undertake a new focus within its current portfolio of support to local groups, which include nonprofit, private sector, research institutional entities in Azerbaijan.

(2) To capitalize on and synergize the impact of other USAID/donor efforts supporting health/local NGOs, the civil society partner implementing the IEC/service component could include local NGOs/CBOs that have already partnered with international humanitarian health activities.

(3) U.S. partners could include, but not be limited to, the Johns Hopkins University's Population Communication Center, as recommended in the RH strategy draft.

3.0 PUBLIC HEALTH ISSUES

3.1 Epidemiology Summary

Armenia, Azerbaijan, and Georgia share important health, health status, and disease commonalities.

- In all three countries, life expectancy has decreased. The leading causes of death are cardiovascular diseases and cancers.
- Key contributors to the sources of morbidity and mortality and to growing numbers of chronic diseases such as diabetes are so-called “lifestyle” issues, including poor diet with a high fat content, smoking, misuse/abuse of alcohol and drugs and problems in all three countries, and mental illness.
- Infant and maternal mortality rates have risen erratically and can be as much as four times higher than WHO targets. Formal and informal fee-for-service medicine has substantially increased at-home deliveries, with an attendant increase in infant and maternal mortality risk. Costs have kept too many women from receiving adequate prenatal care, and abortions continue to be a primary means of birth control. Lack of knowledge about reproductive health choices and failure to seek preventive health care, such as prenatal risk screening, also add to infant and maternal mortality rates.
- Although there are variations among the three countries, childhood immunization levels are low for some antigens.
- The three Caucasus republics are facing a resurgence of communicable diseases such as tuberculosis, much of which is drug-resistant.
- All three countries share rapidly growing burdens of alcoholism, drug abuse, and sexually transmitted diseases, including HIV/AIDS.
- Economic decline has lowered exposure to pollution and workplace toxins, but infrastructure breakdown, including severe problems in sanitation and access to clean water supplies, together with a deteriorated housing supply has exacerbated environmental health problems.

3.2 Primary Care and Delivery System Change Summary

The full set of leading causes of death, maternal and child health-related issues, sexually transmitted diseases, and most other infectious diseases are the very medical problems that science-based primary care can be most effective in preventing, identifying in a timely fashion, and treating. Moreover, effective primary care can secure benefits at a cost far lower than specialty-based and hospital-based care. But the traditional delivery structure in the three republics over the last 15 and more years has given primary care increasingly short shrift, emphasizing secondary and tertiary curative care while minimizing resources devoted to prevention and primary care.

Armenia and Georgia, with major financing support from the World Bank and policy analysis support from WHO, are beginning to turn their health care delivery systems from expensive specialist-based secondary and hospital-based tertiary care to primary care, squeezing resources from the former to

build up the latter. This effort requires not only increasing the medical competency of primary care givers through training and retraining and the provision of basic medical equipment but also a major change in the public's perceptions and expectations regarding the nature of care itself and the quality of care that a reformed primary care structure can deliver.

3.3 Environmental Summary

The general decline in agricultural and industrial production (including the closure of many of the Caucasus's most notorious environment-polluting factories) has reduced the population's exposure to toxic chemicals. At the same time, though, the deteriorating conditions of poverty have provided ideal conditions for the proliferation of waterborne and respiratory diseases. Environmental health problems are not uniformly distributed within any one of the countries or populations. The exposure to lead and dust in cities, particularly in the capitals, is much greater than in rural areas. While most drinking water is derived from good-quality groundwater sources, old pipes and infrastructure, leaks, and poor management heavily compromise drinking water availability and quality. Serious water problems confront cities, towns, and villages. In recent years, the water problem has been manifested in outbreaks of dysentery, typhoid, hepatitis A, and, in some areas, malaria. Other areas of concern include indoor air pollution and waste management. Armenia's draft National Environmental Action Plan, for example, produced with support from the World Bank, focuses attention on two priorities: improved water supply and utilization; and phasing out lead in gasoline and mitigating exposure to lead, especially among young children. Oil and chemical pollution is a serious problem in much of eastern Azerbaijan; in western Georgia, radioactivity from Chernobyl is a continuing problem.

In all three countries, war, natural disasters, and economic dislocation have led to serious housing problems. Refugees and internally displaced persons subsist as squatters or are crowded into unfit housing and refugee camps that lack appropriate water, power, and sanitary capacity. Meaningful paid employment is difficult to find everywhere, but perhaps especially for refugee camp residents, and facilities and opportunities available to them are particularly inadequate.

3.4 Health Information System Summary

While part of the Soviet Union, the Caucasus enjoyed a health information system (HIS) that met many of the needs of budgeting and central planning but nonetheless evidenced substantial weaknesses with regard to the measurement of health outcomes. Since the demise of the FSU, those earlier systems have been essentially irrelevant to changing needs. With reductions in funding and a lack of ongoing utility in the face of today's new realities, the HIS largely broke down shortly after independence.

But good information is vital to the direction, control, and operation of health care and the health care system. Timely and reliable epidemiological data are crucial to the identification of new illness and disease threats, to the redirection and balancing of finite resources to meet the burden of illness, and to monitoring the effectiveness, efficiency, and performance of the health care system as a whole and in its constituent parts. Outcome data are pivotal to science-based medicine and the identification,

development, and dissemination of effective clinical practice. Without such data, decisions regarding appropriate and efficient management of limited resources will be uninformed, inefficient, and wasteful.

As health reform-related efforts have begun to take root over the past three to five years, initiatives to revive a modified health information structure have also been launched. In Armenia, largely due to earlier assistance from the U.S. Centers for Disease Control (CDC), and WHO and the enthusiasm of the head of the Armenian National Health and Analytical Information Center (ANHAIC), the outline of a fairly sophisticated system is in place. For similar reasons, Georgia has demonstrated considerable progress in the last several years. In Azerbaijan, where the government has shown remarkably limited interest in health reform, the nation has devoted little effort to securing health information.

All three countries need upgraded and strengthened health information systems designed to support resource allocation, clinical decision making, and assessments of the impact of system changes at the national and local levels. Of special importance is standardized, consistent reporting and case definition and development of a system and structure that meet the policy and operational needs of participants at the provider, local, regional, and national levels. By definition, data inputs to the health information system are entered at regional and subregional levels. Willingness to expend the effort to develop and input data locally will be substantially enhanced if contributors see themselves—and not simply some far-distant higher level—as beneficiaries as well. Among information that often proves useful at the subregional and regional levels and that can be provided by a central data authority is comparative data. How does “my” area compare with others along given dimensions of interest?

3.4.1 Key Health Data

The data in the table below come from a variety of sources. Many are the product of special-purpose small-area samples extrapolated to the population as a whole. Sample frames and collection techniques are highly variable. *Virtually all are suspect* to some degree and therefore should generally be viewed as indicative rather than dispositive. None reflects a meta-analysis. Especial care should be exercised in any effort to compare data across countries. The reader is encouraged to review the annex, A Note on Epidemiologic Considerations, for more detail.

	Armenia ^a	Azerbaijan	Georgia
Overall immunization coverage ^b	85% ^c	95% ^{b, d}	83-92% ^b
Measles	56% ^{a, c}	99% ^{d, e}	
All, including DPT			28-96% ^f
Infant mortality rate (per 1,000)	17 ^a	20 ^{d, e}	28-35 ^o
Perinatal mortality rate (per 1,000)	16.6 ^a		20-39 ^{p, q}

	Armenia ^a	Azerbaijan	Georgia
Percent low birth weight	7% ^a	17.4% ^{d, e}	
Maternal mortality rate (per 1,000 women of child-bearing age)	28 ^a	40 ^{e, y}	58 ^{p, r}
Abortions per 100 live births	62.6 ^{a, g}	85-102 ^{e, y}	70 ^{p, r}
Average number of abortions per woman of child-bearing age	2.23 ^{a, g}	2.4 ^{e, y}	3.7 ^{p, r, s}
Contraceptive prevalence rate	<10% ^{a, g, h}	10-20% ^{e, y}	1-2% ^{p, r}
“Official” contraceptive prevalence rate	28% ^{a, g, h}		25-30% ^{p, r}
Percent anemia in pregnant women	11% ^g	88% ^{e, y}	40%
Percent anemia in children less than 5 years old	Unknown	46% (42-69%) ^o	
TB incidence per 100,000 population	35		105-178
HIV/AIDS (number of cases)	63 ⁱ		800 (HIV) ^{t, u}
Gonorrhea/syphilis per 100,000 population	31/26 ^{j, k, l}		
Cardiovascular disease deaths per 100,000 population	350 ^{a, m}	333 ^z	730.3 ^{o, v, w}
Diabetes per 100,000 population	949 ^{a, m}		
Mental illness (total cases, inpatient and ambulatory)	850 ^{a, m, n}		

^a Analysis of the health status of the population in the Republic of Armenia, 1997.

^b UNICEF funding grants from USAID for 1996–1997. Includes immunization in all three Caucasus countries, sick-child initiative in Azerbaijan, etc.

^c UNICEF, Skills for Life, Gevorg Pogossian, 1995.

^d UNICEF/Azerbaijan, Annual Report 1997.

^e EPI/Maternity Survey in Five Districts in the Northwest of Azerbaijan—April–May 1997, MSF-Holland.

^f Epicenter (Andre Sasse), Diphtheria Outbreak in Georgia, 1994.

^g UNICEF/AFHA, Assessment of Reproductive Health Indicators, Infrastructures and Resources in Ararat and Vayots Dzor Regions.

^h AFHA, KAP on Reproductive Health and Family Planning (funded by UNICEF, WHO, and UNFPA).

ⁱ The 1996–1997 National AIDS Bulletin I, Armenian National Center for AIDS Control and Prevention, Yerevan, Armenia, July 1997, CHSR/AUA.

^j STD Center, Statistical sheets showing data reflecting STD dynamics in Armenia 1994–1997 (supplied by STD Center).

^k MSF-France, Data on STD in Women from Yerevan Dispensary.

- ^l AFHA/UMCOR/Perinatology Center, Survey on infertility among women and STDs.
- ^m MOH, Annual Statistics Report for Armenia (Russian) for 1996 and 1997 (supplied by MOH/HIS Center).
- ⁿ Project Proposal: Support to Sevan Psychiatric Hospital by MSF-Belgium.
- ^o Georgia Health Sector Overview (presentation) by Curatio International Foundation, May 1998.
- ^p SCF-USA (Anita Ronstrom), Children in the Caucasus, 1995.
- ^q UMCOR: Reproductive Health and Family Planning in Georgia, concept paper, March 1998.
- ^r UNICEF, Georgia women's health profile, 1993.
- ^s SCF-USA (A. Zayan), Reproductive Health in Georgia: Issues and Program Options, 1994.
- ^t UNICEF/Health Net International: Health Care Reforms in Georgia: An Analytical Overview, November 1997.
- ^u Brief data concerning arrangements for struggle against AIDS in the Republic of Georgia.
- ^v B. Abide, I. Pruidze, and B. Piquemal, Tbilisi assessment of hypertensive disorders, 1996.
- ^w Five Years Term State Target Programme for Smoking Prevention in Georgia, Georgian Ministry of Public Health.
- ^x Health and Nutrition Survey of Internally Displaced and Resident Population of Azerbaijan, April 1996, by USAID, WHO, and UNICEF with assistance from MSF-Holland and Relief International.
- ^y Relief International: Azerbaijan—Women's Reproductive Health Program Summary 1997–1998.
- ^z World Bank, 1994. Volume II, p. 64.

3.5 Health Realities and Policy Implications

Vital though curative care, especially hospital-based tertiary care, may be to the health and welfare of individuals, it is a largely secondary factor in explaining the health status of populations. Far more central is disease prevention and health promotion. Over time, disease prevention and health promotion—together with a commitment of financial and human resources to primary care health initiatives—reap the greatest benefits for the greatest number of people. By stressing disease prevention and health promotion concepts, primary health care aims for improved access as well as for services that are available, appropriate, affordable, and timely. Investments in prevention and promotion result in cost-effective care and achieve greater satisfaction for more patients than curative care alone. This does not mean that higher-level, hospital-based curative care should be excluded from national health strategies; it does, however, underscore the adage that an ounce of prevention is worth a pound of cure. By appropriately balancing curative and preventive activities in a national health strategy and budget, *in the long run*, the national health return on investment virtually always favors public health priorities.

On the other hand, the general tendencies of developed countries and their citizenry is to demand more resources devoted to curative care whose effects, at the individual but not at the societal level, are often more immediate and dramatic. Moreover, the “lifestyle” changes associated with disease prevention and health promotion activities directed toward healthy diets, increased exercise, and reduced levels of obesity, alcohol consumption and smoking are very difficult to incorporate into daily living. Tradition, habituation, emotional relief, and ensured present pain versus potential future gain, and, in some cases, cost all militate against an individual's adoption of an optimally healthy lifestyle.

How can consumers come to understand the tension between the desire for expensive, high-technology specialist care versus the need for an emphasis on preventive and primary care? This is one issue that nations rich and poor confront, but one of special concern in countries in dire economic straits. Policy makers must initiate dialogue about patient rights and responsibilities. Initiating such

a dialogue is a particular challenge in the FSU, where citizens have been passive consumers of health care and have not always been informed about treatment options or alternatives outside their immediate service area. If health care decision makers are advocates of informed choice and equitable financing schemes, they are obligated to ensure that health care facilities can in fact deliver both the services and the goods. This promise, so to speak, means that facilities and providers must adhere to standards met objectively through licensing and accreditation review. In addition, salary support, performance incentives, agreed-upon job descriptions, and clear lines of accountability are integral parts of successful health sector management.

Not to be overlooked are the supplies, pharmaceuticals, and appropriate equipment—the tools for the delivery of effective health services. To ensure proper use of these tools, providers must be trained through classroom and on-the-job instruction and through the implementation of clinical guidelines. Important, too, is oversight in furtherance of desired utilization and referral patterns that reflect the best interests of patients and providers as well as overall efficiency and effectiveness. Such oversight requires ongoing management training and capacity building that emphasizes integration of health and financial data, integrity of information systems, and the ability to make corrections in the face of over- or underutilized resources. This type of quality management solicits information feedback from both users and providers of services, identifies best practices in both the administrative and clinical arenas, and rewards for excellence in performance.

3.6 Priorities

Countries exploring a paradigm shift from tertiary to primary-based health care often want assurance that the proposed change is not only conceptually desirable but that it can also be operationalized and is likely to prove effective. It is at this entry point that pilot projects can play an influential role. NGOs often have considerable on-the-ground experience with successes and failures in implementing primary health care projects—from executing local alternative payor mechanisms, to instituting cost-recovery schemes, to organizing community participation around perceived health needs. When such grass-roots knowledge is linked to models of community engagement, the result can be a powerful demonstration not only of the health-related value of change but also of democratization and governance. The experience of efforts in which the core commitment is to primary health care, such as those demonstrations initiated by UNICEF, can provide strong testimony that health care reform is both viable and sustainable.

At this stage of the health sector reform process in the Caucasus, demonstration and implementation partnerships can be especially valuable. Outside technical assistance and transferable skills lend support in settings where major actors desire improvement but do not command the means to realize it. As long as the assisting partners' aim is to work themselves out of a job, partnerships can launch and sustain efforts that may not have been otherwise attainable. But countries dealing with multiple donors with sometimes varying interests often find that donors expend considerable time avoiding duplication of effort or addressing “turf” issues. As a result, some issues remain altogether neglected. Yet, in some settings, multiple donors and agencies may be able to apply leverage to motivate

conflicted, self-interested, or lethargic government entities to endorse desirable efforts such as strengthening MCH, PHC, and adopting WHO and other evidence-based protocols.

Given the many needs and limited resources of all three Caucasus republics, the challenge confronting decision makers is the identification of health issues where investment of human and financial resources allows for the greatest good, i.e, cost-effective improvement of the public health. Such an effort usually takes the form of a primary care/public health initiative as opposed to hospital-based technical assistance. It attempts to address equity of access and availability as well as quality of care. However, programs that are technically solid but do not take into consideration either the disease burden or the magnitude of the affected population can become major consumers of resources that benefit only a minority—often those with the ability to pay—while the sicker and disenfranchised or poorer populations are left without basic health rights. Accordingly, investment in prevention activities and health promotion is more cost-effective than programs that improve, for example, surgical specialty care or state-of-art diagnostic imaging.

Moreover, efforts to enhance the health of the public must facilitate the ranking of public health activities through the institutionalization of support for and proper use of health statistics to identify those interventions where the existing disease burden (frequency, duration, volume, and severity) is high or where sentinel systems indicate the need for urgent action. In addition, initiatives such as the integrated management of childhood illness (IMCI) deserve greater emphasis so that even laudable public health and maternal and child health (MCH) activities do not become fragmented or “verticalized.”

3.7 Health Trends

All three countries reveal a paucity of data that are reliable in their specificity. Inconsistencies arise from problematic data collection and reporting, conflicting case definitions of diseases, and narrowly focused study and research data. Nonetheless, a few clear health trends, including the following, reflect the declining health status of the Caucasus nations:

- decreased life expectancy;
- cardiovascular disease (CVD), cancers, trauma, and accidents as leading causes of morbidity and mortality;
- high infant mortality rates (IMR);¹
- increased infectious diseases, including, among others, TB, HIV/AIDS, and sexually transmitted diseases (STDs);
- increased maternal mortality;
- increased perinatal mortality;
- increased congenital birth defects; and
- continued high rates of abortion.

¹ Armenia shows a small decrease in IMR. Azerbaijan data also show decreasing IMR, but such a trend seems extraordinarily improbable. More likely, Azerbaijan’s data reflect dated FSU case definitions and current underreporting.

Other health trends reflecting collaboration with international organizations, improved availability of childhood vaccinations, MOH initiatives, and other factors are more positive. They include

- increased frequency and rates of breastfeeding;
- improved national immunization rates and EPI;
- increased knowledge about and fewer cases of childhood diarrheal disease;
- decreased cases of acute respiratory infection (ARI); and
- increased contraceptive prevalence rates.

Each country section and the annexes discuss these and other health status indicators in greater detail.

3.8 Health Care Structure and Financing

Currently, the three countries of the Caucasus have similar health delivery systems. In brief, their structure, which is common to all FSU entities, is organized from primary to tertiary care as follows:

1. Primary

- In villages, Feldsher stations or health points known as FAPs staffed by a feldsher,² midwife, and/or nurse;
- In towns, primary care physician or ambulatories typically staffed by a gynecologist and dentist;
- Patients receive basic first aid and the most simple primary care treatments, with most cases referred to polyclinics.

2. Polyclinics

- Outpatient services for a wide range of health concerns;
- Staffed by nurses, midwives, and clinicians for routine primary health care and secondary and some tertiary care, with more serious cases referred to hospitals.

3. Hospitals

- District or tertiary care and regional hospitals located in most major cities;
- Most specialized hospital care typically found in the capital.

With a regionwide glut of specialist physicians, primary health care (PHC) providers have low status in each Caucasus country. Less than half of rural ambulatories employ a doctor. Patients often bypass the lowest-level facilities in favor of polyclinics because of the former facilities' lack of equipment and drugs and their poor physical environment and reputation.

In all three countries, dramatic reductions in government financial capacity since independence have led to significant decreases in government support of health care. Whether through formal or informal fee-for-service payments, patients now face substantial costs for health care. As a result of

² FSU equivalent of a physician's assistant.

increasing out-of-pocket costs for medical services and drugs, evidence in all three countries suggests that many, especially the poor, have simply ceased to seek health care.

3.8.1 Vulnerables

Who are the poor and vulnerable populations at risk in the changing health care environment of the Caucasus? The International Federation of Red Cross and Red Crescent Societies (IFRC) defines “vulnerable” categories throughout Armenia, Azerbaijan, and Georgia as

- older people;
- disabled people;
- institutionalized children;
- refugees/IDPS;
- natural disaster victims;
- detainees;
- older members of the intelligentsia;
- chronic disease sufferers;
- single parents in multichildren families; and
- institutionalized older and disabled people.

Even as fee-for-service medicine is supplanting free care in all three countries, categories of vulnerables—varying by country—remain entitled by law to publicly funded care. Yet, the team was told everywhere that these promises were more often honored in the breach than in reality. The actual practice seems predominantly to be that only those able to pay at least a significant portion of charges are served. Thus, poverty status seems a useful if imperfect proxy for financial access to medically necessary care because, for those with sufficiently low income, accessing health care means foregoing another essential, often food.

Based on a household survey conducted in all three countries using *generally* similar instruments and techniques, one analysis found the following:³

	Armenia	Azerbaijan	Georgia
Number of households in sample	n=1,800	n=1,200	n=1,807
Food vulnerable	19%	18%	25%
Medically vulnerable	17%	11%	13%
Treatment too expensive for household with an ill member	18%	15%	13%

³ A. De Roos and D. Venekamp, ECHO Survey-Caucasus, Annex VI.

	Armenia	Azerbaijan	Georgia
Drugs too expensive for household with an ill member	6%	3%	6%

Other country-specific studies have often found markedly higher household poverty rates. For example, a World Bank study in Azerbaijan that used regional prices found more than half the households to be “poor.” Moreover, in a related community survey, 20 percent of respondents reported the cost of basic nutrition—food—to be their most severe “health” problem.⁴

A draft analysis of household-level data collected by the Armenian State Department of Statistics during November–December 1996 developed the following poverty statistics:

	Urban (percent)	Rural (percent)	Total (percent)
Below poverty line—“Poor”	58.8	48.0	54.7
Below Food Line—“Very Poor”	29.6	24.4	27.7
Less than 40% of median per/capita income—“Extremely Poor”	8.1	9.2	8.5

In the changing environment of health care throughout the Caucasus, many who are economically vulnerable are at risk of being overlooked, missed, or forgotten. As change, intended and otherwise, occurs in the next few years, monitoring vulnerables’ access to and use of health care and services will be important.

3.9 Maternal, Child, and Reproductive Health

Accessible basic health information that addresses primary health care issues, including maternal and child health, prevention of STDs and HIV/AIDS, and reproductive health, is not generally or readily available in any of the Caucasus nations. Lack of affordable health care has led to decreasing frequency of prenatal care and increasing numbers of home deliveries. Rates of maternal and neonatal morbidity and mortality are substantially higher than those in neighboring Western Europe and appear to be substantially and systematically underreported. Women have little or no knowledge of reproductive health choices. The team often heard that many providers are unwilling to give up the lucrative practice of abortion in favor of less well-paying contraceptive measures.

3.10 Nutritional Deficiencies

⁴ World Bank, “Azerbaijan Poverty Assessment,” Volume II, February 1997, p. 15.

Comparison of older surveys and reports with current data suggest that nutritional problems and food insecurity in the Caucasus nations were greater in the early 1990s than today, especially in Armenia. Nevertheless, some nutritional deficiencies persist in areas inhabited by IDPs and refugees and in other pockets. NGOs have largely been responsible for identifying the truly needy and vulnerable and providing food supplementation. Mothers and children as well as elderly pensioners and single heads of households lead the list. In Azerbaijan, the prevalence of stunted growth among children is eight to ten times higher than the expected prevalence of 2.3 percent in reference populations.⁵ Throughout the region, iron deficiency anemia heads the list of needs for micronutrient supplementation. In Georgia, 40 percent of pregnant women and infants are anemic. One survey in Azerbaijan found that more than two-thirds of 12- to 23-month-olds had anemia; a CDC/WHO survey found a prevalence closer to 100 percent.⁶ Goiter secondary to iodine deficiency runs extremely high in some rural areas of Azerbaijan as does vitamin D deficiency in both residents and IDPs. Salt is iodized in Armenia but not in Azerbaijan; in Georgia, only imported salt, which over the last several years has represented an increasingly smaller percentage of the market, is iodized.

3.11 Communicable Diseases

To envision a regional health strategy is to look for common themes and trends where health problems and their potential solutions cross borders. Commonly, communicable diseases meet those criteria, especially where prevention and detection of the disease agent may be deficient due to economics, local technology, limited competencies, cultural considerations, or politics.

Simply put, the recent rise in the incidence rate of infectious diseases in the NIS reflects the universal link between public health security and economic fortune. As an example, the abrupt severing of contractual ties between republics from the FSU in 1991..., coupled with the demand by Russians for hard currency (i.e., US dollars) to purchase vaccines, pharmaceutical agents, and medical supplies, resulted in a 2-year birth cohort (1991-1993) in Central Asia and the Caucasus Region left unimmunized for measles, polio, diphtheria, tetanus, and pertussis. Even now in 1995, the cash-poor governments of the NIS find difficulty providing basic public health services, ranging from measles vaccine for children in Azerbaijan to the repair of broken water mains in Armenia..., resulting in a large waterborne outbreak of shigellosis in the fall of 1994. Additionally, investigators attribute recent increases in incidence rates of tuberculosis to malnutrition, poor living conditions, and lack of antituberculosis medications, which, in turn, reflect the current poor economic conditions and a deteriorating public health infrastructure.⁷

⁵ Health and Nutrition Survey of Internally Displaced and Resident Population of Azerbaijan, April 1996, by USAID, WHO, and UNICEF with assistance from MSF-Holland and Relief International.

⁶ Ibid.

⁷ Scott J. N. McNabb, Terence L. Chorba, and Martin G. Cherniak, "Public health concerns in the countries of Central and Eastern Europe and the New Independent States, in *Current Issues in Public Health 1995*, 1:136-145.

The result was a diphtheria incidence per 100,000 of 0.96 in Armenia, 5.36 in Georgia,⁸ and 9.18 in Azerbaijan in 1994. Among many public health functions, health information systems can serve as sentinel systems that warn of trouble within a district or region and monitor the impact of an intervention. Such systems have been used effectively in the recent past for vaccine-preventable diseases. In the case of diphtheria and polio, all three countries—with the support of UNICEF and other NGOs—have tackled the problem through EPI campaigns, IEC, and vaccine distribution logistics. They successfully halted the rise in diphtheria of the early 1990s such that each country has reported fewer cases of diphtheria morbidity and mortality. Polio has been virtually nonexistent in Armenia since 1995⁹ and in Azerbaijan since 1996. Nevertheless, in some areas of all three countries, overall immunization coverage remains alarmingly low, especially for measles. In Tbilisi, for example, UNICEF reports coverage of only 39 percent while coverage is as low as 28 percent in Abkhazia.

Another clear example is HIV/AIDS. Even with significant underdetection and underreporting, the substantial increase in HIV/AIDS in all three republics¹⁰ is testimony to the urgency of program development. When coupled with the rise in STDs, which are known to facilitate the spread of HIV, HIV/AIDS must be addressed through education, prevention, and integrated programs that unite STD clinics with health information systems to foster information flow around these epidemics. The need is paramount.

Another communicable disease of priority concern in all three republics is tuberculosis, which is showing steady increases in new cases, incomplete therapies, and rising multidrug resistance. The result is a greater disease burden and higher costs to the health care delivery system than the cost of prevention, early detection, and proper treatment. Until very recently, the Azerbaijani Ministry of Health has been and many individual providers in all three countries continue to be resistant to the internationally accepted WHO protocols for TB clinical case management. Throughout the Caucasus, the TB program, like programs for STDs and HIV/AIDS, has not been integrated with other components of the general health care delivery system at the community level. This has too often meant that care is fragmented and not particularly accessible to the public.

The Georgian National TB Program is initiating common (WHO) TB treatment and referral guidelines and a standardized pharmacological approach. The program's strategies will support central institutions as well as peripheral delivery points that integrate traditional "vertical" services into primary care initiatives, thereby allowing "horizontal" care delivery (a broader menu of service and treatment options) as well as the effective implementation of IEC activities. In Georgia, the activities proposed by the Institute of Pulmonology and Tuberculosis (TBI) indicate a commitment to integrating TB services into PHC activities.

⁸ Epicenter (Andre Sasse), Diphtheria Outbreak in Georgia, 1994.

⁹ MOH, Annual Statistics Report for Armenia (Russian) for 1996 and 1997 (supplied by MOH/HIS Center).

¹⁰ STD Center, Statistical sheets showing data reflecting STD dynamics in Armenia 1994–1997 (supplied by STD Center).

	Armenia	Azerbaijan	Georgia
HIV/AIDS (per 100,000)	63 ^a	Unknown	800/26
TB (per 100,000)	3.49 ^b	Unknown	105-178

^a STD Center, Statistical sheets showing data reflecting STD dynamics in Armenia 1994–1997 (supplied by STD Center).

^b MOH, Annual Statistics Report for Armenia (Russian) for 1996 and 1997 (supplied by MOH/HIS Center).

3.11.1 Chronic Disease

Over time, as the three republics “conquer” the communicable disease challenge, they can begin to tackle the specter of chronic diseases by targeting IEC to harmful lifestyle practices in their many forms—high-fat diet and obesity, sedentary work and inadequate exercise, high levels of stress, smoking, and excessive alcohol consumption. Increasingly, reform activities in the future will need to address directly the causes of the growing incidence of cardiovascular disease and cancers, which even now are the leading cause of morbidity and mortality in the Caucasus nations.

3.12 Four System Issues

Undergirding the proposed public health initiatives and movement toward enhanced reliance on primary care are four fundamental systems issues—health information systems, management competencies, quality of care, and pharmaceutical systems. Without changes in these systems, the broader initiatives will not be sustainable.

3.12.1 Health Information Systems (HIS)

One of the fundamental weaknesses affecting the health systems of the Caucasus republics is the gap in information that exists regarding the populations’ health status, emerging health problems, service needs, and supply. To the extent that deficiencies exist in these areas, public policy and public expenditures in health are made in ignorance. Stressed over and over in the team’s discussions with policy makers, NGOs, and providers was the inadequacy of health-related data for effective, informed, and efficient decision making. Case definitions have been applied inconsistently and case reporting still is too often incomplete. Central collectors of data too seldom have shared information effectively either upward to decision makers or downward to subnational implementors.

Given that communicable diseases know no borders, regional information systems will also be of paramount importance beyond the need for improvement at the national and subnational levels. Knowledge about malarious mosquitoes, asymptomatic but HIV-infected migrating workers, and formerly jailed prisoners subject to interrupted TB treatment will of necessity affect both individual countries and the region. In efforts facilitated by the CDC and WHO, great strides have been made in HIS, especially in Armenia and more recently in Georgia, with demonstration of some embryonic interest in data sharing through a regional Internet-based system. Efforts have been slow in reaching the implementation stage, but a momentum that may serve Ministries of Health and regional planners

has emerged. Health statistics in Azerbaijan remain at worst absent and at best uncertain largely because the HIS, if not most of the health sector, suffers from the MOH's low priority rating and has not been effectively implemented; instead, the HIS relies on fragmented efforts, narrowly focused surveys, and limited statistics, with limited generalizability provided by NGOs.

At the regional level, health reform must increase the capacity of the information system for

- surveillance of both infectious diseases and chronic noninfectious disorders;
- monitoring the utilization of health services; and
- quality of care through measurable improvements in process and outcomes.

To ensure that principles of public health continue to guide health sector reform into the future, it will be necessary to institutionalize and expand education and training of providers in both public health principles and practices, with an emphasis on epidemiology and health services research. In Armenia, for example, support of the American University of Armenia and its Center for Health Services Research—through the institutions' respective MPH program and research capacity—would help ensure the continued operation of desired principles and practices. The center may also be able to facilitate training in effective health information communication, including graphic displays of data, publication of concise and timely health bulletins, and skills development in communicating to decision makers, the press, and the mass media.

Where feasible and appropriate, a forward-thinking HIS will facilitate information sharing in the Caucasus such that national neighbors may benefit from cross-border strategies to improve surveillance and control of infectious diseases (e.g., tuberculosis, HIV/AIDS, STDs) and environmental health hazards. In Armenia, leaders could consider support for the activities of the Yerevan-based National Health and Analytical Information Center (ANHAIC), which is lodged within the Ministry of Health. The center is headed by a dynamic leader who is interested in an exchange within the Caucasus and is committed to HIS. Among the three Caucasus republics, ANHAIC is the most technologically advanced institution of its type and is already disseminating bulletins on health statistics for use by NGOs and UNICEF in Armenia. Opportunities exist within the NIS for “cross-fertilization” of best practices, in particular for those intensive demonstration sites (IDS) where the HIS is oriented to monitoring and evaluating primary health care and where service delivery statistics demonstrate that interventions and improvements have boosted services and satisfaction in the catchment area and possibly beyond.

3.12.2 Management

In every setting visited by the team, the needs and local desires for management training were evident. Management training is essential if health facilities expect to put into place standards and guidelines, if they seek to improve quality of care, and if they aim to integrate financial and health information systems for rational allocation of human and material resources. Simple management elements such as job descriptions, reporting relationships, time management (and time sheets), supervisory skills that support rather than punish, and effective allocation of personnel appear nonexistent. The team visited

a range of hospitals, outpatient clinics, and ambulatories in all three republics and consistently found them lacking in management and clinical competency. This is not to demean the staff who persevere to serve patients and desire outside training and support. However, the surplus of providers, hospital beds, and nonproductive hours reflects the absence of effective management and oversight. As evidenced by the health statistics, there is no paucity of patient needs, but the public perceives that health facilities have little to offer other than underemployed staff looking for a salary supplement. It is a sad commentary on a crumbling system.¹¹

3.12.3 Quality

Throughout the Caucasus, quality of care issues abound, including tense patient-doctor relationships, a lack of trust in diagnosis and treatment, and patient skepticism about physicians' profit motive and lack of accountability. Patient dissatisfaction increases with every misdiagnosis and every failed treatment plan. Despite excess numbers of doctors and facilities, the health care system does not have the capacity to respond to priority health needs.

As for quality of clinical care, improved management can also result in standardized care or at least a demand for consistent and up-to-date clinical practice. Little evidence-based medicine is practiced, although that may start to change in cases where outside support from U.S.- and Western European-based institutions has been forthcoming. Yerevan's Erebouni Hospital has instituted a nursing program in partnership with the University of Southern California that attempts to raise the standard of nursing care in the in-patient setting as well as in some community clinics. To some degree, the concept of Centers of Excellence has taken root in Georgia through the Atlanta-Tbilisi partnership exchange, although costs are high compared to basic public health initiatives that do not require major technology importation.

A prime example of management capability achieved cost effectively is the Yerevan-based Armenian Family Health Association, an indigenous NGO committed to family and reproductive health. It delivers excellent services to both the paying and nonpaying public. By coupling IEC with service provision, the NGO has created great public demand that occasionally exceeds its capacity. The association has created a portfolio of activities that combines health promotion and curative services for a diverse population of needy and capable patients. In addition, it has demonstrated sustainability and shown itself to be state-of-the-art and cross-cutting in service activities. The impressive feature is the level of community involvement, even among adolescents and parents. Community involvement speaks to likely sustainability and urges continued if not increased funding support with an eye to replicating this type of indigenous activity within the region where appropriate. Further, such NGO involvement demonstrates a level of democratization as individuals recognize that they not only have

¹¹ Anecdotally, the only "fully occupied" and inadequately staffed health facility visited by the team was an impoverished mental hospital in South Ossetia. It was housed in one of the most decayed physical plants any member of the Assessment Team had ever seen anywhere in the world. It stood in striking contrast to the local 600-bed city hospital whose only activities were caring for two pediatric patients and performing a few surgeries with rudimentary equipment; total staff numbered 595. In neighboring Georgia, a 55-bed hospital had halls of empty wards, one pediatric patient, and two newborns "lying in" with their mothers; staff had ample time to chat with the team.

health choices but also can have voice in their health care. The Yerevan example clearly shows how patient rights and responsibilities can be a win-win for providers and patients alike.

Linked to the above quality-of-care issues are opportunities for measurement and improvement in process and outcomes. As HIS and financial management systems evolve to become more sophisticated, the ability to measure and benchmark the performance of health facilities and, potentially, even individual providers becomes feasible. Already, the Armenian National Health and Analytical Information Center (ANHAIC) is carrying out some comparative profiling in infectious diseases through its EPI-MAP system. In combination with the health indicators devised by WHO/CDC workshop participants in Georgia, such a system could, with some adaptations, highlight areas of strengths and weaknesses on a regional or national basis as a first step in profiling health service delivery. The American University of Armenia's Center for Health Services Research is one example of an institution well placed to assist with methodological issues.

Growing interest in quality of care requires strategies at the central level that coordinate and facilitate training in both management and public health skills and attitudes to ensure that decision making is informed, reflects current domestic concerns and trends, maintains a customer orientation, and enhances/promotes health prevention initiatives. Reform plans should consider the need for training in quality improvement by focusing on team building and team problem solving; plan-do-check-act approaches to service delivery; evidence-based medicine and standardization of practices; and development and implementation of process and outcome indicators to measure and manage activities. Moreover, leaders may want to consider future activities that include provider performance profiling, customer satisfaction surveys, and provider incentives for meeting or exceeding targets and innovation in care.

Quality-of-care efforts require support of service delivery points that actively solicit patient feedback and provide a mechanism for appeals stemming from dissatisfaction and the equitable resolution of patient concerns. Leaders need to encourage feedback features where they do not presently exist and to facilitate the promotion and dissemination of information about patient rights and responsibilities in both ambulatory and in-patient settings.

One characteristic of quality improvement (QI) (as contrasted to quality control or quality assurance) is that it seeks out best practices in the domain of managerial and medical activities, with the threefold aim of bringing them to regional and national attention; replicating them, with local adaptation, when necessary; and rewarding for excellence in service to the public. To some extent, QI can be furthered by seeking out opportunities within the NIS for cross-fertilization of best practices, particularly those intensive demonstration sites (IDS) where a focus on primary health care, market reform, local governance, and customer orientation have led to proactive providers and satisfied, if not loyal, end-users of health and managerial services. Especially relevant would be IDSs where new job creation, competition for patient enrollment, patient participation, and conversion of data into information have boosted services and satisfaction in the catchment area and possibly beyond.

3.12.4 Pharmaceuticals

Pharmaceutical systems form the backbone of sound clinical treatment. With privatization of pharmacies in the Caucasus, however, a certain degree of unregulated practice occurs, allowing for mismanagement or no management of certain infectious diseases. The result is manifested in limited choices of medications; improper duration or dosing intervals; polypharmacy; multidrug resistance of organisms, especially for TB and STDs; and dilemmas associated with donations of expired or short-life drugs and illegal importations. Regulatory bodies and legislation have only partly addressed these problems. The combination of limited domestic production and scarce foreign currency for purchase of imports exacerbates the continuing shortage of affordable drugs and vaccines, leading to an undesirable continuing reliance on humanitarian import assistance. All have faced problems with pharmaceutical licensing, registration, and quality controls; excessive numbers of drugs with questionable safety and effectiveness; and rational prescribing and dispensing of drugs. These conditions have contributed to increased antimicrobial resistance to antibiotics.

In Armenia and Georgia, WHO, with support from the UK Know-How Fund, has supported activities in the development of an essential drug list; development of a national drug policy; formulary development; and good prescribing practices. Azerbaijan is undertaking similar activities through the UNICEF-supported Kuba demonstration. Armenia is pilot testing its list in some hospitals.

In Azerbaijan, the pharmaceutical procurement and distribution system is substantially more chaotic; sample surveys indicate a high degree of dissatisfaction, significant gaps in availability, and numerous obstacles in procuring needed drugs for use by individuals. For example,

Azerbaijan survey: Are the most often used drugs available in the local pharmacy?

	Total (percent)	Cities (percent)	Villages (percent)
Always	28	90	40
Sometimes	28		
Never	44	10	60

4.0 COUNTRY PAPERS

4.1 Armenia

4.1.1 Socioeconomic and Political Context

Armenia, with a population estimated to be as large as 3,785,000,¹² is nearly surrounded on two sides by neighbors with a history of hostility: Azerbaijan and Turkey. Relations with Georgia, Iran, and Russia continue to be healthy, as reflected in economic and political collaboration. Despite historical antagonism, cross-border trade between adjacent regions of Turkey and Armenia continues, with open encouragement by the central and political leadership of both countries since early 1996.

Armenia is in the midst of transition from a Soviet-style, command economy to a democratic society with a market economy. Despite political stability and acceptable progress in economic stabilization and market reform, lingering political problems over Nagorno-Karabakh continue to undermine economic recovery. At the purely technical level, limited communication and unpublicized information exchanges with Azerbaijan's health authorities seem to be acceptable to the Armenian MOH, as signified by recent high-level discussions between the two Ministers of Health during a gathering of CIS health officials.

Armenia is more than halfway through its second Structural Adjustment Credit from the International Monetary Fund. In 1997, the GDP grew for the third year in a row to approximately \$1.585 billion, or about \$530 per capita. The rate of growth was approximately 3.2 percent in 1997 following a growth rate of approximately 6.3 percent in 1996. While tax collections continue to be limited by administrative difficulties, revenue generation has been higher than expected (suggesting better enforcement and collection of arrearages) and government expenditures have remained low.

Mixed with these positive signs are suggestions of renewed problems with monetary and fiscal policy. Hyperinflation, brought under control at 5.4 percent in 1996, inched back up to approximately 22 percent during 1997 and the first quarter of 1998. Industrial output continues to decline, and the economy remains dependent on foreign economic assistance. In fact, foreign donors financed an estimated 40 percent of the 1997 state budget. Even though the government has eliminated all arrears in the health sector (including salaries), civil service reform and reductions in government payrolls have been slower to take root than anticipated.

4.1.1.1 Privatization and Investment

Though the privatization of large and medium-sized enterprises has proceeded more slowly than planned (about 65 percent to date), approximately 85 percent of small enterprises have been privatized. In 1997, the private sector produced an estimated 65 percent of GDP. Nearly all

¹² Population estimates range from 3.3 million to 3.4 million (USAID) to 3.7 million owing to the unknown scope of economic and Nagorno-Karabach conflict migration and the lack of a recent census.

agricultural land has been privatized, though a lack of an effective land titling system and market continue to constrain land sales.

Despite a persistent trade deficit, Armenia maintains a liberal trade regime without the imposition of foreign exchange controls. Its policies are generally favorable to foreign investment, but few foreign firms are keen to invest in Armenia. Given faster growth in other countries and the possibility of being cut off from bustling Azerbaijan and Turkey, foreign firms look elsewhere for investment opportunities. If the regional conflicts were to be resolved, Armenia could expect more investment and income from increased communications and transportation as well as revenues from oil and gas pipelines.

4.1.1.2 Social Summary

Until the recent elections in Armenia, a single government had enjoyed control since independence. The new government, elected in part because the earlier regime had been portrayed as “soft” regarding resolution of the Nagorno-Karabakh conflict, continues a commitment to both popular participation and alleviation of the economic burdens borne by the public. One of the new government’s early acts was to recognize the legitimacy of the Dashnak party. In a gesture toward the Armenian diaspora, Armenia passed a dual citizenship law that permits the diaspora to secure Armenian citizenship while retaining their current non-Armenian nationality.

Given the “no peace, no war” residue of the Nagorno-Karabakh conflict, continued military readiness represents a constant drain on Armenia’s financial resources. Resettlement of Armenian groups to occupied territories in and around Nagorno-Karabakh continues to gain momentum while no final resolution of the stalemated conflict is in sight. Shortly after the Assessment Team’s visit, the government threatened to absorb Nagorno-Karabakh officially into Armenia, exacerbating ongoing tensions with Azerbaijan.

The new government is upholding the country’s commitments to international lending agencies such as the IMF and the World Bank, both of which helped Armenia achieve dramatic though recently slowing economic gains over the last few years. Armenia has realized substantial improvements, especially in the agricultural and energy sectors. In major cities, electricity is available almost constantly, and gas service has been largely restored.

Health and other social indicators still reflect an adequate standard of living. The literacy rate is nearly 100 percent and official child mortality rates are comparable to those of many Western countries. Nevertheless, Armenia’s GDP has dropped by an estimated 60 percent between 1989 and 1997, making its per capita GDP among the lowest in the NIS. Income levels are estimated to be only 40 percent of pretransition levels. The quality of life for many people has deteriorated markedly since independence largely as a result of the collapse in real wages, which in turn was compounded by the reduction in subsidies and social services. Enrollment in higher education institutions has declined dramatically. One in four persons is unemployed. Multiple surveys agree that the number

and proportion of poor and deprived people has soared. Birth rates have dropped and an estimated 700,000 people emigrated from Armenia during the last five years.

Both the Armenian diaspora and the international community continue to support improvements in the provision of care for and maintenance of vulnerable groups. As for the general population, however, a lack of resources coupled with limited ability to consolidate progress made to date prevents most Armenians from realizing the benefits of reform and the restructuring process—even amid a political climate that supports reform of the social service and welfare sector. Overall, the general public is ignorant of the benefits, rights, or responsibilities associated with the health reform process. In the near future, though, access to digestible information on health reform will be pivotal to motivating health consumers and health providers both to take advantage of stated benefits and to voice their concerns publicly.

4.1.2 Health

Statistics in a 1997 report issued by the World Bank indicate declining life expectancy for the Caucasus region in general and an increasing burden of disease for Armenia's population.

Life expectancy (in years)

1993	Men 67.9	Women 74.4
1985	Men 69.8	Women 75.7 ¹³

Despite a decline in adult health status in Armenia since the 1980s, the overall death rate has remained steady over the last few years. The decline in adult health is especially noticeable in comparison with the continuous improvements enjoyed by Organization of Economic Cooperative Development (OECD) countries. In addition, the downward trend in birth rates likely contributes to the official Armenian pronatalist attitude.

Armenia continues to suffer from economic breakdown, refugee strain, earthquake damage, trade blockage, limited central heat, intermittent water supply, poor hygiene, and ongoing stress. Although extensive humanitarian support by international organizations, NGOs, and the diaspora has helped prevent major decline, many of the health problems plaguing the country are rooted in poverty, including TB, waterborne infectious diseases, respiratory diseases, and vaccine-preventable diseases. In such situations, infectious diseases could run rampant, but effective cooperation among aid sources, NGOs, and the MOH has, for example, addressed the transitional gap in vaccine coverage. Nevertheless, a lack of infrastructure, inadequate equipment, and a shortage of trained staff have weakened Armenia's capacity to respond to public health crises. The burden of private spending falls on the sick, who are more likely to be in the low-income category. The Minister of Health indicated that Armenia currently allocates 1.7 percent of GNP to health. His best guess was that to cover the

¹³ E. Gomart, Report on Social Assessment in the Health Sector, AUA.

population's needs adequately, Armenia should allocate 10.3 percent of GNP. The latter figure, which is approximately equivalent to Canadian spending on health care and 50 percent higher than British spending on health care, reflects the troubled state of the country's economy.

The 1997 state budget was approximately \$256 million, of which \$25.5 million or 10 percent was allocated to the Ministry of Health, with an additional \$1.2 million allocated to the sanitary-epidemiologic account. But these figures, significantly below \$10 per capita, represent allocations rather than actual disbursements, which have run at a considerably lower level in recent years.

Health care in Armenia is currently undergoing several major shifts—supported in major part by the World Bank: from emergency conditions to a focus on system rehabilitation and development activities; and from Soviet-style vertical, specialist-provided curative care to an increasing emphasis on preventive and primary health care. In addition, Armenia has demonstrated the potential for a new commitment among all participants to health-related collaboration, information sharing, and public participation and dissemination.¹⁴

4.1.2.1 Reform

In the health sector, several organizational and legislative changes point to favorable advances in reform, including decentralization of managerial authority to the regions (Marzes) and the initiation of second-generation reforms in health care financing.¹⁵ NGOs, many of which developed in response to the 1988 earthquake and the ongoing Nagorno-Karabakh humanitarian crises, are now interested in a role in longer-term development. Indeed, the government's supportive attitude toward community action, citizen participation, and private sector activities provides NGOs with an unparalleled opportunity.

As in Georgia, where health policy reform has a somewhat longer history, senior-level officials in the Armenian government and MOH are publicly committed to implementing health sector reform. They are also cognizant of the need to provide better, more efficient services that respond to people's needs. Notwithstanding the difficulty of access to and availability of health care for the average citizen in Armenia, the MOH has been willing to bear the onus that often accompanies change. Accordingly, it is spearheading

- the adoption of targeted entitlement to subsidized health care rather than unaffordable continuation of free care for all. In general and in theory, eligibility extends to all children while subsidized coverage of adults is need-based;

¹⁴ Under the Soviet system, "knowledge was power" and little was shared with the public. This is a primary reason why IEC on anything from information on the Armenian Basic Benefits Insurance package to dispelling "old wives tales" regarding health presents such important opportunities for change. With better knowledge about health, consumers will come to providers better informed and more empowered to engage providers and the health system in satisfying their needs.

¹⁵ The first generation of reform was more de facto than de jure, as the virtual collapse in government resources led to overt provider charges and direct patient payment in place of the officially free services provided in the FSU.

- radical devolution of the chain of operating authority from the central to the regional and local government levels;
- the adoption of a basic benefits package of subsidized services on a nondiscriminatory basis;
- a publicly declared commitment to both increasing patient/consumer control over individual health decisions and promoting individual responsibility and choice in seeking health care; and
- reaffirmation of priorities to refine health care financing, improve health information systems, enhance the quality of health care, and ensure access for vulnerable groups.

Positive though these efforts are likely to prove over time, a fundamental problem is the lack of public and provider awareness or understanding of public health reform. While the following was written to describe conditions in Georgia in mid-1997, its applicability to Armenia—and Georgia—is still timely.

Lack of information and education about health reform exists throughout the health system and the society in general and has led to misunderstanding and mistrust. While government has a clear understanding of reform, deputy ministers do not understand the myriad of issues facing providers, the private sector and, most importantly, consumers. Providers understand the issues facing consumers, but do not understand the vision of reform or the financial constraints of the MOH. Because their future is tied to reform, the private sector understands both the concept of health reform and the work that is done by the MOH. They, however, misjudge the ability of consumers to pay for services and seem detached from the problems that are facing many in the system. Finally, and because they have focused on community level aid programs, development agencies appear to be perplexed by the recent incentives that have been implemented in reform and question the government commitment to community development and access to care.¹⁶

4.1.2.2 Administrative Structure and Responsibilities

A year ago, the administrative organization of the Armenian health care system was restructured to decentralize operational authority. The effort introduced major changes with regard to roles and responsibilities of the various levels of government, including funding and budgeting. The MOH, representing the central government, is focusing on policy formulation and development by defining population-based priorities; drafting laws and regulations; defining health care standards and necessary health statistics; building a licensure and accreditation system initially focused on pharmacies, virtually all of which are now privatized; and planning for systemwide human resource needs. The MOH is also the responsible central body for defining elements in the basic benefits package (BBP) and recommending levels of national government resources to be devoted to health.

¹⁶ Catherine Silansky, “Perceptions of Health Reform: A Qualitative Stakeholder Analysis of the Progress of Health Reform in Georgia,” The World Bank Project Coordination Unit—Georgia Health Project, June 1997.

A number of the elements in the BBP are being brought together under the State Health Agency (SHA), which was still undergoing establishment during the Assessment Team's field work but will ultimately become a freestanding parastatal insurance/financing agent with obligatory participation.¹⁷ The SHA is seen as the main component through which to accomplish necessary regulation of state health financing programs. When operational, it will contract with, make payments to, and monitor the quality of public and private health care providers. The intent is to devise a capitation system for primary care and to pay for other care on the basis of services and outcomes. The SHA will not be obligated to contract for services with all providers; provider quality and efficiency are anticipated to be important contract criteria. If the SHA has wide-ranging responsibilities, its proposed work agenda is equally ambitious. By January 1, 1999, it is to be up and running on a pilot basis with 35 medical care facilities—having within one year developed legislation, recruited and trained a work force at both the central and Marz levels, put in place a payment system, recruited and signed contracts with providers, and defined and implemented a Basic Benefits Package. The goal is to be fully operational in 2000.

While the SHA is still in the process of evolving, reform in training and supply of physicians and nurses is well underway. Armenia, like other NIS countries, has an excess of doctors and nurses (42.2 physicians and 107 nurses per 10,000 population). In 1992, the Armenian State Medical University reduced admissions from 1,400 to 300 per year; in 1994, major training curricula changes were made to enhance students' medical competence. Physician training outside the state medical university will be permitted, but the number of training slots will be limited in line with national targets. A licensure examination likely will be required. In 1996, reform of nurse training was adopted by law, with the period of basic nurse training extended from two to three years.

At the regional level, legislation has given 11 Marzes responsibility for organizing the activities of health care facilities, including their construction, maintenance, and utilization; hygienic and epidemiological surveillance; health data collection from all facilities—public and private—within the region; monitoring to ensure that health care targets are met; and coordination of intercommunity health activities. The Marzes also have responsibilities with regard to raising funds and developing regional health budgets.

It is the responsibility of 930 community- or "Hamaink-"¹⁸ level entities to oversee local health care establishments and organizations; assess and evaluate local health care needs; collect statistics to support local, Marz, and national health information needs; and ensure that national and Marz health care targets and goals are met at the local level. The Hamainks also have responsibility for planning local health budgets and raising necessary funds.

Both Marzes and Hamainks are experiencing great difficulty in balancing their budgets. Furthermore, they are unable to meet fixed costs. After salaries are paid, the remaining funds are inadequate to

¹⁷ The SHA's managerial board will include representatives from the Ministries of Health, Social Security, Finance, and Economics, the Yerevan municipality, and, on an annual rotation, representatives from two Marz health departments.

¹⁸ Hamainks are heterogeneous—many are rural, others highly urban; hamaink populations range from approximately 500 to 200,000.

meet other costs, e.g., for electrical bills, which have risen dramatically since independence. The regions carry unpaid bills as outstanding debts. Marzes and Hamainks operate with little concept of planning and face facilities with no history of or incentives for economy. The team visited several hospitals where staff left taps running and opened windows rather than turning down the heat.

4.1.2.3 Access

In general, physical access to some type of medical care is adequate, though the deteriorating conditions of the health system make access to rural care problematic in some places. In winter, the population of some rural mountain villages are temporarily unable to gain access to health care facilities due to snow. Many higher-level care sources, which often offer better-quality care and medicines, are clustered in urban areas, especially the capital.

Limited geographically by administrative catchment areas, people do not have a choice of polyclinic. Doctors may refuse to see patients who patronize facilities other than their assigned polyclinic, or they may charge a fee because out-of-area patients are considered nonregistered.

One study showed that villagers reported living within a 30-minute walk of an FAP or a 30-minute drive of either a polyclinic or district hospital. Nonetheless, villagers noted problems with transportation costs, closed facilities, unqualified medical staff, or lack of equipment/essential medicines. A household survey concluded that “proximity [to health care facilities] is not as much of a problem as cost.” An ECHO-coordinated study conducted in May 1996 found that 24 percent of households with an ill member had no access to medical care due to inability to pay. The 1996 World Bank Social Assessment concurred that “39.7 percent of persons who were ill chose not to seek treatment because they could not afford it.”

Although private practice is permissible, it is difficult to determine what percentage of the population is served by private practitioners or if that service is subject to the same quality issues as public health care.

4.1.2.4 Pharmaceuticals

As of February 1998, WHO reports the improved availability of a limited range of essential drugs.¹⁹ However, affordability remains a central obstacle because of underfinanced hospitals that are plagued by inadequate supplies and the shifting of costs to patients.²⁰

¹⁹ As compared to the program initiated in 1994. See Armenia Emergency Pharmaceutical Assistance Project, Final Evaluation, February 1996.

²⁰ Other improvements in pharmaceutical issues include a new drug policy law that was to be adopted at the end of 1997 but may still be under consideration. In addition, a committee reviewed the national essential drugs list. A World Bank survey of the hospital sector, coordinated with WHO, was to start in early 1998 and included plans for reshaping hospital pharmacies through pilots. A national drug formulary was printed in August 1997 and distributed to all health facilities and authorities.

In accordance with a June 1997 decision of the government of Armenia, patients must pay in full for treatment in hospitals except in certain emergency cases. As a result, hospitals are experiencing a decline in patient load and a shortfall in drugs. The MOH is to use a new drug price monitoring system established in June 1997 for the purpose of regulating prices and developing a drug reimbursement system. Contacts have been established between the Armenian and Georgian MOHs to exchange information on price levels and developments.

On a positive note, in September 1997 Armenia hosted the first multicountry meeting on the development of guidelines for good pharmacy practice.²¹ One outcome is that community pharmacies no longer stock expired drugs, although irrelevant donations mean that some expired drugs are still to be found in hospitals. The MOH has adopted and is implementing guidelines for donations. The guidelines should help overcome past patterns of political pressures brought to bear both to exclude some proposed donations of desired drugs and to secure entry of short-dated or unnecessary drugs.

The percentage of legally imported drugs seems to be increasing, but it is difficult to cite a specific figure. MOH collaboration with customs agents has led to significant improvement in the level of legal importation such that the percentage of unregistered drugs on the market decreased from 60 percent in 1993 to 10 percent in 1997. Limited domestic production exacerbates the continuous shortage of affordable drugs and vaccines, thereby leading to increasing reliance on humanitarian import assistance.²²

4.1.2.5 Perceived Quality

Despite an excess number of doctors and facilities, the health care system does not have the capacity to respond to priority health needs. Quality-of-care issues persist and sometimes reflect patient skepticism about physicians' profit motive. The result is patients' lack of trust in diagnoses and treatments.

An AUA study (1996) demonstrated a decline in polyclinic utilization. Patients perceive few tangible benefits²³ and, with limited resources, object to payment requirements. Referrals are no longer a prerequisite to gain access to specialists (i.e., patients are able to circumvent the gatekeeper). The health care delivery system as a whole is characterized by short working hours and significant physician absenteeism.

The specter of additional fees discourages patient follow-up visits. In addition, self-referrals may lead to frustration as patients experience difficulty in navigating the health system in search of the health

²¹ A working group was formed to continue the work and to select the pilot pharmacies.

²² Clearly, it does not make financial sense for Armenia—or the other two Caucasus republics—to seek to establish a broad pharmaceutical sector capacity. On the other hand, importation of expensive foreign drugs (even if they are cheaper than domestic production) has important balance of payments' implications.

²³ Benefits such as drugs, services, or diagnostic equipment.

care they need. Choice of practitioner is “influenced by an informal network of referral” made up of friends, acquaintances, and family. The network is in part a defense mechanism that prevents patients from getting lost in the system between referrals. People resort to multiple sources of health consultation out of their mistrust in physicians and lack of confidence in the accuracy of medical tests.

At all health facilities, the need for supervision, management training, and performance-based competency examinations remains great. Fulfillment of these needs would help facilitate physician accountability among professional peers, supervisors, and health consumers.

4.1.2.6 Health Information Systems

The Armenian National Health and Analytical Information Center (ANHAIC) in Yerevan, created in 1996, is responsible for implementing the national project on HIS for the period 1996–2000. It has received support from WHO since 1996 and from the CDC between 1992 and 1996, at which time the USAID/CDC PASA concluded. Its seven departments (health statistics, computer technologies and communications, monitoring, publications, special studies, training, and evaluation and progress) appear to be well developed to meet Armenian demands. The center has both EPI-INFO and EPI-MAP capabilities, which staff demonstrated to the team during a site visit.

One tangible piece of evidence as to ANHAIC’s productivity is the publication and dissemination of periodic bulletins covering infectious diseases, complications of diabetes, abortion rates, earthquake health impact, and national economic statistics. The bulletins, requested by NGOs and UNICEF, contain graphic data displays. UNICEF indicated a willingness to pay for the bulletin to help ensure its sustainability. Evidence of successful HIS functions came with the 1997 outbreak investigation of malaria where there were 166 cases per 100,000 population and, in some areas, rates as high as 456 per 100,000

Computers and fax machines have been installed in some of the 11 regional health information service centers to expedite data collection and analysis. Data entry forms have been developed and appear to be in use. Even though the center is generating data for the country, data validity and completeness still need refinement. In addition, data flow and data sharing between the SES and services management at the Marz and local levels need to be assessed and strengthened.

Future activities for the Armenian National Health and Analytical Information Center (ANHAIC) will focus on essential health indicators, case definitions, a mechanism for inclusion of case-based data within a health monitoring system, review of actual clinical activities (such as diagnosis, management, and documentation), and further training, computer installation, and clear definition by an expert working group of public health and services management functions at the rayon and regional levels. The Sanitary Epidemiologic Service has no experience and capacity to implement cost-effective primary and secondary prevention measures for noncommunicable disease.

4.1.3 Priority Health Problems

Armenia's recent crude mortality rate was 6.6 per 1,000. The overall death rate has remained steady at approximately 6.5 percent over the last few years. The leading cause of mortality is cardiovascular disease (CVD) and ischemic heart disease at 350 and 225 deaths per 100,000, respectively. Health providers have seen a slow increase; over the decade 1986 to 1996, the mortality rate for CVD increased by 27 percent. Among all the remaining non-CVD and noninfectious disease causes of 1996 mortality, cancer²⁴ and cerebrovascular accidents followed at 97.6 and 94, respectively. Motor vehicle accidents and intoxications were tallied at 41; infectious diseases at 8.45; and TB at 3.49.

As for morbidity data, when hypertension is included in health statistics on CVD, the official 1996 statistics show the leading cause of morbidity was CVD and hypertension at 5,344 per 100,000, followed by psychiatric and central nervous system disorders (2,690), diabetes (1,306), infectious diseases (1,506), and cancer morbidity (1,025).

CVD and trauma are large contributors to disability among Armenians. Males account for 59 percent of the disability adjusted life years (DALYs) lost; of these, 54 percent were age 15 to 59, the most productive years of life. In 1995, CVD accounted for 36 percent of the death DALYs listed for all Armenians and for 43 percent of the death DALYs for Armenian women. As for disability adjusted life years, trauma accounted for 21 percent among men and 14 percent among women. In 1993, 89 percent of public funds were spent on hospital services and only 2 percent on out-patient services.

4.1.3.1 Smoking

At least 43 percent of all Armenians smoke; men represent 70 to 72 percent of smokers while women account for 28 percent.²⁵ The large majority (90 percent) of males age 12 and older smoke. One-fourth of teens smoke; boys begin at 16 years, females by age 21. One-fifth begin before age ten, with most beginning at ten to 12 years. Tobacco consumption drains a significant portion of family income. One cigarette pack per day costs 6,000 drams per month, exceeding the average monthly salary for many types of employees. Other studies show even higher percentages of smoking: 57 percent of boys and 21 percent of girls age 14 to 16. Given that smoking is a major risk factor for cardiovascular disease and cancer, this behavior is a major public health concern.

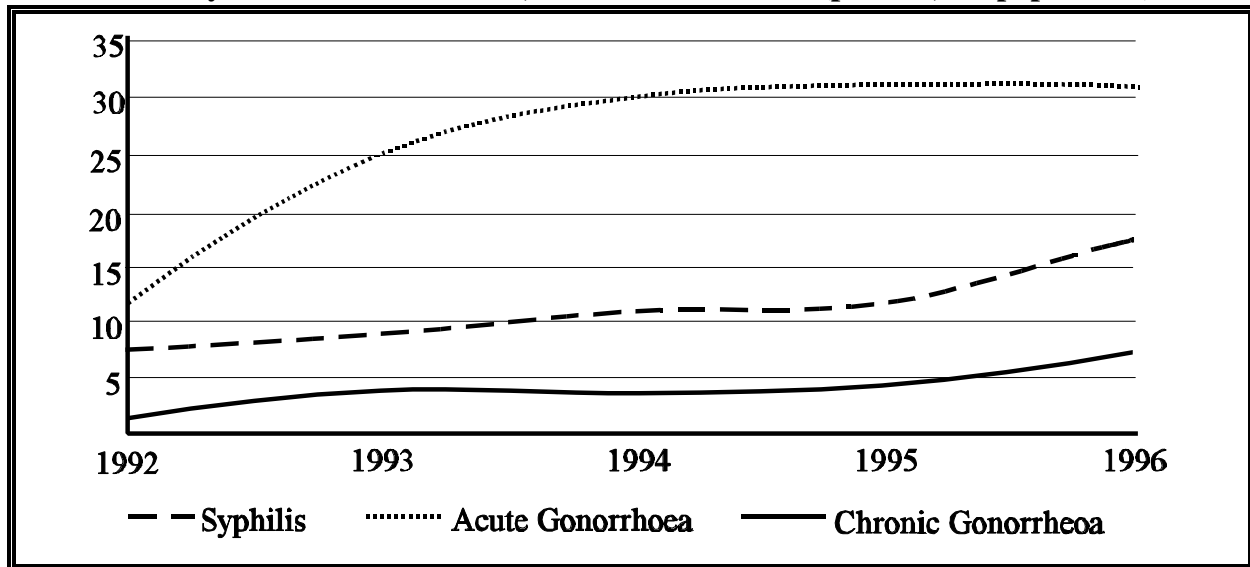
4.1.3.2 Tuberculosis

Since the 1980s, TB has doubled, with as many as 1,000 new cases per year and 180 deaths now reported annually. The proportion of people who die from TB (cause-specific mortality) in the same year as diagnosis increased by 70 percent from 1994 (15 percent) to 1996 (26 percent) largely

²⁴ As in many countries in transition, newly diagnosed cancer is on the rise. Trend analysis from 1970 through 1996 points out a gradual increase from 109.6 cases per 100,000 population to 126.1, with a sharp drop in the early 1990s. Detection bias and decline in service correspond to Armenia's political upheavals and may account for the drop earlier in the decade. The 1996 morbidity among females per 100,000 was as follows: female organ cancers at 113.9; breast cancers at 29.7; cervical cancer at 11; pelvic inflammatory disease at 190; and complications of pregnancy, labor, and delivery and the postnatal period at 1,236. In contrast, tuberculosis was at 12.3.

²⁵ Knowledge, Attitudes and Practices Regarding Smoking in Adolescents in Armenia: National Anti-Smoking Program. Baseline Data Collection, Anahit F. Ghazanchyan, MD, MPH, Yerevan, 1997.

Sexually Transmitted Diseases, Armenia 1991–1996 (per 100,000 population)



because of late diagnosis and the spread of multidrug resistance. Of all TB cases, 12 percent are among children—twice the U.S. rate. As in all three countries of the Caucasus, tuberculosis by general report is on the rise.²⁶

4.1.3.3 Sexually Transmitted Diseases (STDs) and HIV/AIDS

Many factors contribute to the increase in STDs and HIV/AIDS in Armenia. Massive unemployment and the search for work outside the country have led to considerable mobility in and out of Armenia and the region. Trucking routes to Iran and travel to Russia and other parts of the FSU have meant increased exposure to STDs, including HIV. One-third of the HIV cases gave a history of travel; one-third are prisoners and military men. In addition to sexual transmission, intravenous drug use is an important contributor. Drug use in general rose thirty-fold between 1993 and 1997.

As Armenia mobilizes its population to rebuild its economy, it must necessarily entrust its future to its young people, who comprise the most economically productive sector of the population. But with HIV/AIDS incidence highest among the young (mean profile is a 30-year old male), Armenia faces a loss of productive years of life—and it can hardly afford to squander its human resources. Based on existing Georgian cases of HIV/AIDS, WHO staff for Georgia project 16,000 cases of HIV in the

²⁶ However, the government data sources do not reflect such a trend; in fact, official statistics state the opposite. TB trends from 1970 to 1996 indicate a decrease from 39 new cases per 100,000 in 1970 to 24 in 1996. Prevalence in 1970 was 177 per 100,000; in 1996, it was 98 per 100,000.

year 2000 and 200,000 cases by 2010.²⁷ Similar projections for Armenia reveal the urgency of prevention activities for that country.²⁸

The National AIDS Bulletin for 1996–1997 pointed up the lack of public awareness of HIV/AIDS within Armenia. Moreover, with only three testing centers in Yerevan, limited reagents, and inconsistent availability of other laboratory supplies, HIV testing is confined to a select subpopulation. Lack of access to testing outside Yerevan suggests major underdetection and underestimation of HIV/AIDS. Of the 54 cases in 1996–1997, only 22 percent were detected from voluntary walk-in testing. Little information is disseminated to the public about the services provided by the Armenian Republican Center of Dermatology and STDs. Lack of space, training, and materials at the center further limit pre- and posttest counseling. Although HIV testing is not readily accessible for most people, treatment for HIV/AIDS likely never will be. The key to preventing HIV/AIDS from gaining more of a foothold is to prevent its spread, an effort that would require a massive infusion of IEC directly to the public.

The Armenian Republican Center of Dermatology and STDs reference hospital estimates that 100 percent of AIDS cases are sexually transmitted. In Georgia, it is estimated that more than 50 percent of cases are intravenous drug users. The AIDS Center is physically and administratively separate. The health information center is unable to track HIV/AIDS because the disease falls under the jurisdiction of the Ministry of Hygiene, not the MOH. The head of the STD hospital claims that he cannot gain access to the AIDS statistics because they are confidential, further indicating a problem of communication between two institutions that are both facing related epidemics.

STDs have shown a general upward trend since the early 1990s. Statistics for 1996 show that acute gonococcus infection leads the list at 31 per 100,000 in 1996; syphilis under treatment numbered 26 cases per 100,000; and syphilis in all forms occurred at 18 per 100,000 and chronic gonococcus infection at 8 per 100,000. The highest rates of syphilis occur among 20- to 39-year-olds. Several factors, including an increase in prostitution, suggest that the upward trend in STDs and HIV is likely to continue. The overall (males and females combined) infertility rate is about 25 percent, in large part because of STDs; 40 percent of the infertile are men.

Few health practitioners wear gloves and most lack access to disposable one-use needles or sterilization equipment. According to one NGO collaborator, the national reference hospital has yet to embrace or universally adopt updated WHO protocols. Among STDs, reporting is compulsory only for syphilis. The process is perfunctory and includes cross-border action such as sending follow-up letters to inform Moscow of STD cases, which are then subject to mandatory treatment.

Despite allegedly free treatment for STDs and an increasing disease burden, the national reference hospital's records show a decline in patient flow. The 200 bed-Armenian Republican Center of Dermatology and STDs, which treats dermatological and infectious disease as well as STDs, operated

²⁷ WHO, Annual Report, 1996.

²⁸ Officially, 63 new cases were reported for 1998; this is thought to be a major underestimate.

at 100 percent capacity in 1995 but dropped to 70 percent capacity in 1996 and 46 percent in 1997. While hospital officials claim that their out-patient flow has increased, it is difficult to ascertain if patients with STDs, as in other health areas, are delaying or not seeking treatment, and if so, why? One international NGO categorized STD tracing as “very aggressive” to the extent that police round up STD-infected persons in the street and force them into the hospital. The NGO has seen no change in this practice after three years of collaboration. From a human rights and public health privacy perspective, such an aggressive approach sends a harshly negative message to those who might wish to seek care.

Surveys about the knowledge and attitudes of university students are revealing. The mean age of first sexual experience among Armenian men is 17, yet the school curriculum includes no formal education about sexual health. One survey among university students showed that 38 percent of respondents were sexually active but that only 8 percent used condoms. Fifty percent of the students perceived themselves as invulnerable and did not see themselves at any risk for STDs. Yet, 95 percent desire an educational program and 66 percent would like a telephone hotline. About 73 percent used television, radio, and the printed word for information on STDs. Seventy-one percent relied on friends for information on condoms. The degree of misinformation about transmission of HIV was high.

4.1.3.4 Child Health Issues

Infant mortality rates (IMRs) are a good indicator of the overall status of basic health services, the general standard of living, and the public’s knowledge of health care and where to gain access to it. IMRs also reflect many factors within a country and are not attributable to any one cause. Armenia’s IMR continued to decline until 1996, when it briefly increased to 15.5 per 1,000 live births from the 1995 low of 14.2; in 1997, it was 13.6. When IMR is adjusted to include 500- to 1,000-gram birth weights (7.5 percent of all births), it increases to 17. Births have dropped by 6 percent each year for the last seven years.²⁹

Official perinatal mortality rates (in 1996, 16.6) exclude newborns in the 500- to 1,000-gram range but account for 85 percent of mortality. Neonatal mortality represents 52.2 percent of infant mortality. Armenia has seen an increase in congenital birth defects (9.9 in 1988 to 14.7 in 1996), along with an increase in the number of high-risk pregnancies. Fifteen percent of infant deaths occur in the first 24 hours after admission. The delivery system is hampered by poor facilities, inadequate supplies, low salaries, a lack of CME, and increased costs and out-of-pocket expenses. The perinatal period is sensitive to quality of medical care. Improved clinical practices, along with appropriate equipment and standardization of professional expertise and facilities, are likely to lead to a reduction in perinatal and maternal mortality.

²⁹ MOH, Annual Statistics Report for Armenia (Russian) for 1996 and 1997 (supplied by MOH/HIS Center). Also, analysis of the health status of the population in the Republic of Armenia, 1997.

A WHO report concluded that serious malnutrition was not a problem in Armenia.³⁰ A 1993 refugee survey, however, noted that chronic malnutrition as a result of poor-quality caloric intake was five times higher among refugees than among the reference population. We can safely assume that the situation has improved but that refugee children are probably still more vulnerable to malnutrition than nonrefugee children.

Acute respiratory infection (ARI) is one of the leading causes of morbidity and mortality among children in Armenia and the world. More than 21 percent of all infant deaths (under one year of age) are attributable to ARI.³¹ In Armenia, ARI caused 3.3 deaths per 1,000 live births. Approximately one-half of all out-patient encounters at polyclinics were for ARI; one-third of all admissions to children's hospitals were for ARI. Since 1994, one response has been to offer ARI case management training; to date, 20 percent of all providers at nonhospital sites have been reached.

As testimony to the positive impact of UNICEF initiatives, the introduction of ORS in 1993 and training in ORS since 1994 have meant that control of diarrheal disease has fallen from third place as a leading cause of death in under fives. Clearly, though, mothers of children under five still need to be targeted for information and education about controlling diarrheal disease.

For the last three years, national immunization coverage has ranged from 85 to 95 percent, yet some districts remain deficient in measles and mumps coverage.³² Diphtheria outbreaks have been controlled largely because the Expanded Program on Immunization has continued to function at all levels, including the most peripheral. Since 1995, the government has reported no cases of polio or neonatal tetanus.

In 1994, the MOH adopted policies that terminated the five-year flood of freely distributed infant formula, thereby resulting in a forced change in donor strategies. By 1997, breastfeeding was at 65 percent, although only 20 percent of mothers exclusively breastfed as compared to less than 1 percent in 1993.³³ The most dramatic change in postpartum practices over the last few years has been rooming-in. It has not, however, significantly increased breastfeeding in part because mothers must pay nurses each time they bring a baby to its mother. Wellstart International, UNICEF, and the MOH of Armenia have been leading a highly successful IEC campaign for breastfeeding promotion through multiple media, including well-received and recirculated brochures. IEC³⁴ and the focused efforts of

³⁰ However, there is some micronutrient deficiency, including insufficient vitamin A, iron, and iodine. Information on iron deficiency anemia is nonexistent. Salt is iodized.

³¹ UNICEF/Center for Health Services Research (CHSR), Assessment of Case-Management of ARI in Children in Armenia, Report on National Survey, Robert McPherson, Sergey Sargsyan, 1997. Also, UNICEF/AUA, Caretakers' knowledge, treatment practices and caressing practices for ARI and diarrhoeal diseases in children under 5-years-old in Armenia, report on national survey, 1997.

³² This improved from 70 percent national coverage in 1993; measles coverage is 56 percent.

³³ In particular, the duration of breastfeeding increased, with one third of babies still breastfed at one year after birth, especially in view of the expense of formula.

³⁴ The Wellstart campaign demonstrated that the printed word is an appropriate means of IEC in Armenia. Literacy rates are high and the tradition of reading is strong, but there is a lack of available materials.

a few service providers around breastfeeding have resulted in a national breastfeeding promotion policy, a national BF coordinator, and a national breastfeeding committee, though no dramatic behavior changes.

4.1.3.5 Maternal Health Issues

The maternal mortality (death per 100,000 population) had declined from 40.1 in the 1980s to 14.2 in 1992; it then doubled to 28 in 1996. In comparison, the WHO target is 15 for Europe and 25 for other nations; the Armenian national target is 17 per 100,000.

The leading causes of the maternal mortality rate (MMR) are hemorrhage, hypertension complications, infections, and abortions. A 1991 study showed that about 63 percent of women have had at least one abortion; 6.3 percent have had more than ten; the average number of abortions is 2.23. The ratio of abortions to live births increased from 405 per 1,000 in 1992 to 602 per 1,000 in 1994.

Close to 98 percent of women in Yerevan and 87 percent outside Yerevan seek prenatal care. Yet, more than 40 percent of women in Yerevan and more than 50 percent outside Yerevan do not seek first care until after the first trimester. The occurrence of home deliveries rose from 0.3 percent in 1990 to 4 to 7 percent in 1994–1996. As for other health concerns in pregnant women, anemia has risen dramatically from 2.6 percent in 1988 to 10.8 percent in 1996. Likewise, preterm and low-birth-weight births represented 5.7 percent of all births in 1988 and 7.8 percent in 1996. Hypertension in pregnancy increased from 4.9 percent in 1988 to 6.6 percent in 1996 while STDs in pregnant women rose from 31 per 100,000 in 1988 to 50 per 100,000 in 1996.

In a study of prenatal health education and healthy lifestyles (Jinashian Memorial Program study), few pregnant women changed their diet, took vitamin supplements, and exercised regularly other than walking; moreover, they had high exposure to passive smoke. With a health education intervention, however, 75 percent of the women made lifestyle changes in diet and eating habits, breastfeeding, and child care. Participants in the study indicated that health education materials, such as the booklet used in the study to inform pregnant women of healthier choices, should be distributed to young couples immediately after marriage or even to every young girl. Much more information is desired, especially about complications of pregnancy, postpartum issues, and child care. Participants strongly stated that health education should also be targeted to men and the husband-wife team, not just to women. (The last is especially important with respect to contraceptive choices, as it is the Armenian man who often makes the decision about contraception.)

4.1.3.6 Reproductive Health Issues

Over the past few years, Armenia has seen a notable decline in its birth rate. Emigration—temporary or permanent—and an actual decline in the fertility rate may account for much of the drop from 13 (per 100 population) in 1995 to 11.7 in 1997. The following problems point to an urgent need for

redirected and refocused attention on primary health care, including both maternal and child health and reproductive health:

- high rates of abortion;
- low contraceptive prevalence rates;
- high prevalence of anemia;
- increase in sexually transmitted diseases among pregnant women;
- increase in the number of pregnant women with hypertension;
- delayed PNC until after the first trimester;
- increase in congenital birth defects;
- increase in the number of high-risk pregnancies;
- more home births;
- increase in perinatal mortality and maternal mortality;
- increasing number of premature births; and
- declining birth weights.

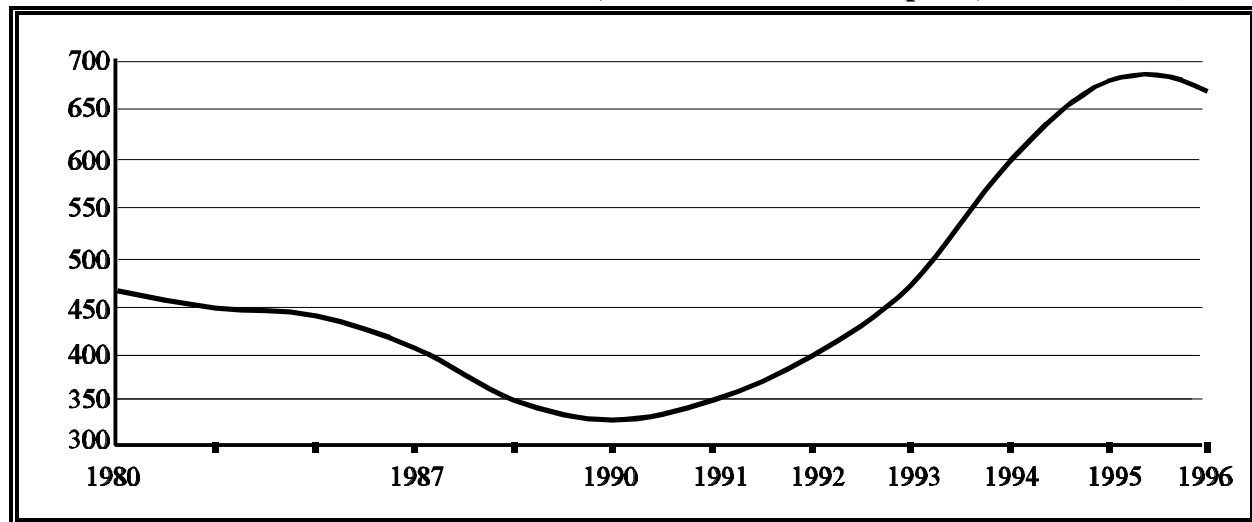
The contraceptive prevalence rate is officially 28 but is more likely to be 10 percent or less. Using hospital-based data, an AUA study in 1992 on contraceptive use found that 1.6 percent of women of child-bearing age use IUDs and 0.06 percent use oral contraceptive pills. According to another study, private pharmacies account for 62 percent of the sales of contraceptives within Yerevan and polyclinics for only 2.4 percent. The most available contraceptives are condoms at 88 percent, oral contraceptives at 36 percent, and IUDs at 21.4 percent. Condoms also register the highest demand. In 1996, 9.2 percent of females had an IUD; only 2.7 percent used birth control pills.

In comparison with live births, the abortion rate remains very high, having nearly doubled between the dissolution of the Soviet Union and 1995. In the last several years, however, there appears to be not only a leveling off but also the beginning of a decline.

4.1.3.7 Mental Health

The psychological consequences of continued shelling, the disruption of families due to economics, and the fear of earthquakes all leave deep scars. The actual incidence of mental illness has not received much attention, but MOH statistics reveal a little more than 800 cases per 100,000 for mental illness “contingents” under clinical examination, with steady increases since the early 1990s. The newly diagnosed total is about 30 per 100,000, with similar steady rises over the same time.

Official Data on Number of Abortions, Armenia 1980–1996 (per 1,000 live births)



MSF-Belgium data (1997) indicated that the mental health prevalence of severe psychotic cases (those in need of close supervision and short hospitalizations) fluctuates around 850 cases per 100,000 population. Light cases (patients who come voluntarily) number around 90 per 100,000. Each year brings about 1,000 new cases. Incidence of severe psychiatric disease is around 30 per 100,000 and of light cases about 10 per 100,000 (decline from 54 in 1989).

4.1.3.8 Water and Sanitation

Most of Armenia's drinking water is derived from groundwater sources of good quality.³⁵ However, old pipes and infrastructure, leaks, and poor management severely compromise the availability and quality of the drinking water.³⁶ Serious water problems confront Yerevan and secondary cities as well as an estimated 400 rural villages. In recent years, the water problem has been manifested in outbreaks of dysentery, typhoid, hepatitis A, and malaria. Of the two priorities in Armenia's draft

³⁵ Armenia: Programme Assessment Diarrhoeal Diseases and Acute Respiratory Infections in Young Children (10.3-16.3, 1996), Dr. I. Lejnev and Dr. T. A. Madaras, WHO/Regional Office for Europe.

³⁶ Emergency Water and Sanitation Assessment and Action Plan for Yerevan, Armenia, May 1993, WASH Field Report No. 396.

National Environmental Action Plan, produced with support from the World Bank, one is improved water supply and utilization

As evidence of water-associated diseases, scabies cases increased five to 15 times between 1995 and 1996 as compared to 1992. Scabies is mostly a disease of children. The parasite load is as high as 50 percent in some NK regions. Almost 40 percent of communal water lines in Armenia do not meet standards. School sanitation is in dismal condition.

4.1.4 Past USAID Assistance in the Health Sector

Generally speaking, USAID has focused on both helping Armenia meet the critical challenges of economic and democratic transition and providing humanitarian assistance to the most vulnerable group. To date, USAID-assisted health care programs have been limited to the following programs:

4.1.4.1 CDC and Health Information Systems

From December 1992 through August 1996 and from October 1997 through June 1998, the U.S. Centers for Disease Control and Prevention (CDC) provided technical assistance, training, and equipment to help the Armenian Ministry of Health reform its public health information system. Efforts included restructuring public health epidemiological practices and upgrading public health surveillance capabilities. Specific activities focused on modern epidemiology, biostatistics, and scientific communications that provide internationally accepted working case definitions; indicator selection; development of the capacity to publish an epidemiological bulletin; and the creation of a data line for the collection, analysis, and reporting of health information. The HIS has been integrated into the MOH and has been expanded countrywide. It has initiated cost-recovery efforts and now offers training to other NIS countries.

4.1.4.2 Partnerships

The American International Health Alliance has supported two successful hospital partnerships in Yerevan. The partnership between the Emergency Scientific Medical Center in Yerevan and the Boston Medical Center focused on emergency medicine, medical education, surgery, hospital administration, telemedicine, and nursing. The partnership between the Erebouni Medical Center/College of Nursing and the UCLA Medical Center focused on women's health, neonatology, and upgrading the skills and prestige of nurses (by offering Armenia's first bachelor of science degree in nursing). In addition, the partnership between the Johns Hopkins University and the American University of Armenia's Center for Health Services Research has been especially fruitful.

4.1.5 Other U.S. Government Health Assistance

In February 1997, the MOH received a \$15 million donation of U.S. Department of Defense excess hospital equipment and supplies as well as complementary assistance from a team of 30 physicians

and technicians. The U.S. Department of State's humanitarian support to Armenia since 1992 amounts to approximately \$200 million.

Other USAID humanitarian assistance programs with direct health implications include the distribution of humanitarian pharmaceuticals; feeding programs for vulnerable populations; winter weatherization programs and heating assistance; repair of community water systems; health education for vulnerable children; and assistance with vaccine procurement and support to PAROS, a system to help international donors and the government of Armenia target assistance at the most vulnerable populations.

In addition and in accordance with congressional directives, USAID will initiate a reproductive health program in Armenia in FY 1998 to decrease extensive reliance on repeat abortions as a method of contraception. USAID/Caucasus will launch the program by conducting information, education, and communication (IEC) campaigns to promote greater knowledge, acceptance, and adoption of modern methods of contraception. The campaign will also promote the prevention of sexually transmitted diseases and HIV/AIDS.

4.1.6 Other Donors

Other than the generous Armenian diaspora groups and the United States government, the major international donors involved in the health sector are WHO, the World Bank, UNICEF, ECHO, UNHCR, WFP, UNFPA (through UNDP), the Netherlands government, TACIS, and UNDP/UNAIDS. A large number of NGOs and international organizations are active in the health field, including OXFAM, MSF-Belgium, MSF-France, ICU, UMCOR, IFRC, and ICRC. USAID's assistance has been primarily through the SCF umbrella grant, but also through Partnership grants such as the UCLA/Erebuni project and other health activities such as the PASA with CDC, the funding to the government's PAROS (implemented through Fund for Armenian Relief, or FAR), Amcross, the Armenian Assembly of America, Mission Armenia, and the Armenian Family Health Association.

Most of the assistance by other donors is still primarily humanitarian (started in 1988 with the earthquake), with approximately 65 percent of U.S. government support characterized as such in FY 1997. Despite its care-and-maintenance nature, much of U.S. humanitarian aid has laid the foundation for longer-term reform and development, such as support to the energy and utility sectors, the social vulnerability assessment (PAROS), and other activities. The PASA with CDC has resulted in a much more evolved HIS system within the MOH, which is currently trying to expand to and strengthen its regional components of the HIS system. Much of the assistance by the Armenia diaspora groups has taken on a charity approach, with little interest or capacity for longer-term development. However, some of the international partners have found some particularly strong Armenian NGOs that have partnered with them in many worthwhile projects (e.g., AFHA, Mission Armenia) with excellent results. Other than these and a few other minor peculiarities, the reform of the health sector in Armenia continues to suffer from a similar set of constraints and challenges as the ones facing Georgia. The need for coordination of fragmented donor efforts assisting an already

overwhelmed and confused (though well-motivated) MOH is a high priority if international assistance is to make a cost-effective impact without further waste of time and limited resources.

4.1.7 Recommendations

• <u>Budget</u> (all estimated)	Reproductive Health	FY98 - .675;	FY99 - 1.0;	FY00 - 1.0
	Partnerships	FY98 - 1.0;	FY99 - 2.5;	FY00 - 2.5
	Other	FY98 - .3;	FY99 - 1.0;	FY00 - 1.0

4.1.7.1 Major Options Not Developed

- **Bricks and Mortar** (including water and sanitation; expanded humanitarian assistance; drug production, procurement, and distribution; equipment; building rehabilitation, etc.)
Rationale: USAID should focus its efforts on capacity-building activities that address all diseases rather than on financing commodities, expanding humanitarian assistance, or investing in vertical, disease-specific programs.
- **Disease-Specific/Vulnerables-Specific Interventions** (such as TB or other infectious diseases; cardiovascular or other chronic diseases; environmental health; and mental health, disabilities, and other special vulnerable groups)
Rationale: The region has a dynamic epidemiological profile. Just as donors have been called upon to address diphtheria in the past and tuberculosis now, the team was generally concerned that those efforts would have little impact or not be sustainable unless systemic issues, which influence all diseases, are addressed through capacity-building activities. In addition, there was concern about developing a sense of entitlement/welfare mentality, which might prove counterproductive and is economically insupportable.
- **Personnel Training** (including continuing medical education; provider retraining; medical training curriculum development; MOH skills development)
Rationale: Many of these activities are components of options presented elsewhere or supported by other donors; the team's view was that skills' weaknesses are better addressed through efforts directed at broader, systemic capacity building rather than through narrow efforts focused on training per se.

4.1.7.2 Selected Options for USAID Consideration

The team's primary recommendations to USAID, as detailed in the Recommendations section of the Options Matrix (Section 2.1), are threefold. We urge support for

1. information, education, and communication efforts in reproductive health;
2. "making health care reform work for us," by building on the UNICEF model that stresses an effective understanding among subnational units of government, providers of services, and

the population of their new roles, rights, and responsibilities made necessary by changes within the health care system; and

3. improving the health information system so that its product is timely, consistent, and useful to users/decision makers at the national and subnational levels.

The Options Matrix (Section 2.2) includes additional options as well as illustrative intermediate results.

4.2 Azerbaijan

4.2.1 Socioeconomic and Political Context

In the early years of the coming century, Azerbaijan will enjoy a substantial increase in state revenues from oil extraction, but the revenues will not begin to flow for at least five years. At present, Azerbaijan's resources are extremely limited, income disparities are enormous, and the aftermath of the Nagorno-Karabakh war with Armenia—which created a large population of internally displaced persons and refugees—remains a significant drag on the economy.

Azerbaijan's total population was estimated at 7.566 million in 1997, according to projections from the most recent census (1989). More than half the population resides in urban areas; 12 percent is under five years of age and 11 percent over 55 years of age.

Relations with Iran, Turkey, Russia, and Georgia are improving, as evidenced by increasing levels of trade and other exchanges between these countries and Azerbaijan. The 1994 cease-fire agreement with Armenia has held with little subsequent population upheaval. Despite the relative lack of military hostilities, Azerbaijan has yet to move toward a final settlement of the Nagorno-Karabakh conflict and has not responded to the recently failed Armenian compromise proposals negotiated by Organization for Security and Cooperation in Europe (OSCE) mediators.³⁷ Prospects for the return of the large uprooted populations to their homes appear bleak, although an international donor pilot involving UNDP and UNHCR seeks to repatriate certain groups to the "liberated" area of Fizuli.

Economic issues continue to plague Azerbaijan. While recent economic growth has been substantial (approximately 5 percent in 1997) and tight fiscal management has brought inflation down to approximately 3 percent in 1997, many have nevertheless not benefited. Unemployment reached 32 percent in 1997. Substantial wage disparities exist between male and female workers. In Baku, women earn 30 percent of their male counterparts' wages; outside the capital, they earn 45 to 50 percent of men's wages. Visitors and residents alike are witnessing a new phenomenon: child labor on the streets in the form of selling, working at odd jobs, and dropping out of school.³⁸

Some signs suggest that community groups and citizens occasionally have been able to mobilize and act on issues at the national level or in some of the more ignored rural areas. Even so, the general relationship between government and the population is more often one of suspicion, active oppression, and intolerance. For example, while the law requires NGOs to be registered, the requirements are at best unclear; NGOs find themselves required to register but most cannot. Those NGOs that champion human rights causes or challenge the government's authority and actions are especially at risk of forced noncompliance with the registration requirement.

³⁷ In late June, a flurry of concern resulted from Armenia's suggestion that it would annex breakaway Nagorno-Karabakh. The proposal drew strongly negative international reactions.

³⁸ There is some disagreement over drop-out rates. Some estimate it may be as high as 10 to 25 percent, with the higher rate applying to children over 12 years of age. UNDP/Baku (Azerbaijan Human Development Report 1997), however, estimates a combined gross enrollment total of 87.9 percent for ages six to 23. Compulsory education covers nine years of schooling.

4.2.1.1 Privatization and Investment

Bolstered by revenue from the initial oil and gas contracts, the government of Azerbaijan has curbed earlier hyperinflation and stabilized the local currency, the manat. Certain market reforms have been undertaken, including demonopolization, trade liberalization, and lifting most price controls. Given Azerbaijan's natural resource endowments, international lending institutions continue to give the government high credit ratings, which bode well for government revenue. Azerbaijan's natural endowments may mean, however, that the government does not feel obligated to reform either the public and social service sectors or the economy at large.

Privatization is well underway, albeit at a slower pace than expected. By law, approximately 70 percent of all enterprises are to be privatized by 1999. In 1992, state-owned enterprises accounted for 95 percent of GDP. By 1997, that proportion had declined to 48 percent and is projected to drop to 30 to 35 percent by the end of 1998.³⁹ In some part, the reductions are artifacts that reflect the increasingly significant contribution of Western-owned oil to GDP. The oil companies account for 75 percent of total capital investments and the continued moribund condition of many state-owned industrial enterprises. Direct foreign investments and tied investments grew by 450 percent between 1995 and 1996 and represented more than 55 percent of the period's total investments.

To date, agriculture has been a major component of privatization efforts. Under Azerbaijan's Privatization in Agriculture program and Law on Land Reform, 90 percent of arable land is to be privately owned. Nonagricultural privatization was planned as a two-stage process that began in early 1996 with small enterprises, which are defined as entities with fewer than 50 employees. Late that year, the enterprises were auctioned to their staffs at a discount. Privatization of medium-sized and larger enterprises has suffered a number of delays and setbacks but finally began with the sale of 132 of 138 firms offered in June 1997. Enterprises were to be sold by voucher or auction, although by law not more than 10 percent may sell at auction. Reviews by others indicate that many see the process of privatization as a mixed blessing. Vouchers distributed to the population have brought some income benefits when the vouchers are subsequently sold, but

...the environment for such reforms has not been properly created. The mass media has provided, for instance, very little information on the mass privatization (sic) programme. Many people have come to perceive privatization as a source of corruption and a means for an elite group of insiders to enrich themselves at the expense of the whole population.⁴⁰

4.2.1.2 Social Summary

³⁹ For comparison, 75 percent of the employed population worked in the state sector in 1990; by 1996, that figure had declined to 44 percent.

⁴⁰ United Nations Development Programme/Baku, *Azerbaijan Human Development Report 1997*. Parenthetically, Azerbaijan is one among the group of five CIS countries rated by the Economist Intelligence Unit (EIU) Country Risk Service; in 1995, all five countries received the highest rating (4) for corruption among public officials. Armenia and Georgia were not among the countries rated by EIU. Source: European Bank for Reconstruction and Development, *Transition Report 1997*.

Most people live in poverty, although incomes appear to exceed the reported numbers. Unemployment in Azerbaijan is high, and the already substantial income disparity between the wealthy and the poor is growing. Pension payments have been significantly reduced, from 6.6 percent of GDP in 1993 to less than 2 percent. The proportion of IDPs and refugees in the Azerbaijani population is the highest of the three Caucasus states, totaling over 700,000 people.

According to the World Bank, one result of the decline in GDP between 1991 and 1995 is “that over 20 percent of families can be classified as severely vulnerable.” Vulnerable groups include the disabled, the elderly, the institutionalized, IDPs, homeless children, and female-headed households. Nonetheless, “donor response has not assisted with these severely vulnerable families, but rather has directed activities towards refugees and IDPs, in part because they are more vulnerable than other population groups, but mostly because they can be more easily targeted.”

As evidenced by unreliable water and power, inadequate roads, poor schools, spotty health services, and a limited number of sports or community events, few community structures remain. Many residents seem apathetic and lack a sense of identity; they are unable to organize, advocate, and address their own priority concerns and aspirations. The legacy of top-down, Soviet-style management still carries heavy weight in Azerbaijan, making it difficult for many IDP communities to move toward self-sufficiency. Development workers have a clear need for community empowerment through programs that identify and mobilize communities around issues identified by residents themselves.

But problematic as the current situation may be, it represents substantial improvements in a number of ways. Azerbaijan appeared to be on the verge of civil war in 1993; in late 1994 and early 1995, it survived attempted military coups. The threats no longer exist. Illegal armed groups have been suppressed and the military is no longer seen as a threat to the government; citizens’ basic security currently seems assured.

The government continues to rely on international assistance to meet the basic needs of its population, especially the 700,000 IDPs and refugees. An increasing proportion of vulnerable residents affected by the breakdown in the government social safety net are growing progressively dependent on international donors and NGOs. Efforts to remind government of its responsibility for health and social service reform have had little effect or have been met with indifference.⁴¹

⁴¹ An example is the apathy and disinterest shown by the MOH toward a health sector reform package offered by the World Bank. At the time of the Assessment Team’s visit, the bank’s offer had been with the Ministry for more than six months, with no response whatsoever.

4.2.2 Health, Health Care Financing, and Structure

Overwhelmingly, the leading causes of death in Azerbaijan are noncommunicable, lifestyle diseases, especially cardiovascular disease⁴² and cancers, with a significant reemergence of infectious diseases (diphtheria, malaria, TB), especially in rural and underserved areas. Mental health, diarrhea, and malnutrition, together with reproductive health problems, are leading causes of morbidity.⁴³

IDPs and refugees tend to live in crowded conditions with poor sanitation and water, insufficient protection from the elements, and inadequate nutrition. These factors contribute to unacceptably high rates of anemia and iodine deficiency, stunting, congenital anomalies, and growth and mental retardation.

In 1996, government expenditures in the health sector represented 1.6 percent of GDP compared with 2.9 percent of GDP in 1990. Though substantial, the reduction dramatically understates the magnitude of the absolute and per capita decrease. Not only has the population increased over the period, but real GDP has dropped cumulatively by 62 percent from preindependence levels. Thus, in effect, total real government spending has declined by more than three-quarters. Currently, per capita government spending on health is approximately \$7. The World Bank estimates that 1995 private out-of-pocket payments for drugs and medical services exceeded public expenditures by a factor of more than four to one.

Despite major problems of underfinancing, Azerbaijan's health care system—like that of its Caucasus neighbors—can point to a vast inherited surplus of beds (99.1 beds per 10,000 population); an overabundance of physicians (38.9 per 10,000 population), too many of whom are underpaid, inadequately trained specialists; and an excess of nurses (87.7 per 10,000 population), most of whom are poorly trained. Interestingly, these statistics have remained virtually unchanged over the period 1985 to 1996 even as government resources to fund the system have plummeted.

The major changes in Azerbaijan's health care structure may be said to be

- increased underfunding by government;
- inadequate compensation of health care providers and workers;
- shifting of payments to patients;
- a growing lack of financial access for many who are simply “priced out”; and
- growth and entrenchment of a two-tiered system, one system for those who can pay and another system for those who are eligible for and have access to government or internationally funded humanitarian IDP medical facilities. Those who fit neither category simply do not in the main secure service.

4.2.2.1 Reform

⁴² Population trends show a tendency for adults to become obese with age. The association of diabetes and cardiovascular disease with obesity is well known. Among adults, 30 percent were overweight with grade II obesity; among the elderly, 43 percent were overweight with grade II obesity.

⁴³ Nonetheless, malaria, hepatitis, and brucellosis account for 34 percent of the hospital load. Malaria is mostly *vivax* and *falciparum*; seven or more southern districts were affected.

What is needed in Azerbaijan are reforms based on the principle of universal access to a basic package of health services. However, in the absence of reforms and affordable or quality health care, Azerbaijan at the least needs to make available readily accessible information on primary health care issues such as maternal and child health, reproductive health, and prevention of STDs. The greatest need is to reach women, who often are left to care for families and find themselves responding to crises by making tough decisions about how to spend family resources—often with little or no knowledge on which to base such decisions.

Reportedly, reforms of the health care system have been announced. The reforms have as their purpose the introduction of a basic health care package with universal access and the elimination of informal, “under-the-table” payments.⁴⁴ During its on-the-ground site visit, however, the Assessment Team saw no evidence of any actions to further reform and, even in interviews with mid-level staff of the MOH, heard no mention of future reform goals. Indeed, the only reform activities were limited to primary care-related training efforts conducted by some international NGOs and substantial though geographically limited demonstration efforts initiated by UNICEF. These demonstrations have received the approval and support of the MOH, which is providing approximately \$150,000 in in-kind support through health worker salaries.⁴⁵

4.2.2.2 UNICEF Demonstrations

Launched respectively in 1996 and 1997, UNICEF demonstrations in Kuba and Masalli are designed to rationalize the local health care system.⁴⁶ To optimize services to the population, the demonstrations are following a strategy that shifts health care delivery from in-patient tertiary care to ambulatory primary health care centers. Specifically, the strategy calls for eliminating many of the functions of the primitive intermediate, village-level hospitals and merging multiple remaining surgical departments into a single entity; retraining current and newly freed hospital-based specialists in primary care and merging them into polyclinics and ambulatories; and developing a profit center in retail sales of listed essential drugs that, together with fees for medical services, will help the demonstrations toward self-sufficiency.⁴⁷

To make the provider side of the demonstration reforms “work,” UNICEF supplements provider salaries so that specialists can afford to deliver primary care. UNICEF also offers retraining and oversight to ensure provider competency in primary care. To help meet operational costs, UNICEF provides drugs at cost for mark-up to a level that generates the “profit” necessary for facility

⁴⁴ European Bank for Reconstruction and Development, *Transition Report 1997*.

⁴⁵ Absent the demonstrations, the government would still pay salaries in approximately the same amount to the same workers, but the providers’ roles and responsibilities would be much more rigid. Central to demonstration “success” is the government’s acceptance of provider direction and primary care retraining by UNICEF as well as the government’s willingness to permit some flexibility in provider roles and assignments.

⁴⁶ Kuba, with a population of 130,000, was selected because of its high infant mortality rate. Masalli, with a population of 180,000, was selected because of economic and agricultural reforms already underway.

⁴⁷ Even with a profit, however, the cost of drugs sold through the UNICEF demonstrations is only 20 to 25 percent of the cost of those purchased in the private sector.

maintenance, drug resupply, administrative expenses, and the dispensing of discounted or free drugs to those the community identifies as appropriate recipients.⁴⁸ To make primary care acceptable to service populations accustomed to hospital-based specialist services, UNICEF has supported development of a community-based health “oversight” structure. A health council is established in each community of typically a population of 2,000 to 3,000; community leaders serve on the council. Meetings are open, often attract substantial public participation, and provide a strong sense of community “ownership” and identification. They also provide one of many forums for information exchange, education, and communication among and between professional and community participants.

A collection of several communities makes up the catchment area of a primary health center (PHC). Each primary health center includes a trained midwife and five beds, often used for normal deliveries. Representatives from each of the primary health centers’ service areas constitute the governing board of their respective demonstrations. Monthly meetings between the community-based boards on the one side and government-appointed health care professionals and managers on the other offer the opportunity for sharing information, education, and communications.

While it is not yet possible to make a final judgment on the success of the UNICEF demonstrations, reports to date are particularly encouraging. IEC seems effective in gaining community and provider support for both the demonstrations themselves and their underlying concept: the primacy of primary care and prevention as central, cost-containing components in an integrated, quality-based service package. Even though the UNICEF demonstrations operate on a much smaller scale than reforms underway or proposed in Armenia and Georgia, the interim view of the Assessment Team is that they are proving dramatically effective in large measure because of the attention devoted to information, education, and communication. All participants know they are participants; understand and accept their respective roles, rights, and responsibilities; and demonstrate a sense of ownership and active commitment.

The UNICEF budget for each demonstration is approximately \$180,000. Roughly 40 percent of the budget, or about \$70,000, is used to purchase the initial supply of drugs. The demonstration governing board and the respective communities are responsible for drug resupply, which is made possible by revolving retail sales. UNICEF uses another 40 percent of the budget to purchase basic equipment for the PHCs and health care workers. The remaining 20 percent pays for training and retraining of providers and others. Two oil companies—Elf and Unical—have been the primary funders of the demonstrations.

4.2.2.3 Administrative Structure and Responsibilities

The health care system is similar throughout the FSU. But Azerbaijan, alone among the three countries of the Caucasus, has made virtually no shift in administrative roles and responsibilities since dissolution of the former regime. The new constitution establishes a two-tier government structure

⁴⁸ Pharmacist salaries are paid by the government of Azerbaijan as a contribution to the demonstrations and hence are not a charge to the sites.

consisting of the central government, of which the MOH is a part, and local “self-administration” units. The self-administration units have not been formed, and, as of late 1997, the legislation necessary to their creation had not received approval. Thus, it is not surprising that the health system remains highly centralized. The MOH provides both day-to-day operational direction and guidance as well as policy oversight. In general, subnational entities have little power and virtually no independence and are headed by presidential appointees who serve at the president’s pleasure. Regardless of jurisdictional reach (regions or cities), the subnational entities remain the creatures of the central government.

4.2.2.4 Access

In general, physical access to some type of medical care in Azerbaijan is adequate, though rural care is problematic in some places in view of the health systems’s generally deteriorating condition. In winter, some rural populations are temporarily cut off from health care facilities. Many higher-level and often better-quality services as well as stocks of medications are clustered in urban areas, especially the capital. However, even a short assessment tour revealed that the Azerbaijani medical infrastructure is more decrepit and its equipment more outdated than that in Georgia or Armenia. As our translator said on entering Baku’s hospital #1, “God forbid I should have to come stay here.” In particular, the war with Armenia seems to have affected health facilities; more than 300 hospitals and polyclinics were destroyed.

While IDPs have the option of obtaining at least minimal primary health care services from a camp or public clinics located in rehabilitated buildings, facilities must, by direction of the MOH, refer anything more complicated than the most basic health care needs to the Azerbaijani medical system. As indigents, IDPs are supposed to receive free services, but few such services are made available.

More broadly, given high rates of unemployment, the failure of many employers to pay their employees, and the costs—official and otherwise—of health care, economic access is usually a greater problem than physical access.

[Because of costs] about 50 percent of the population does not use medical advice in cases of sickness or health problems. And 55 percent of those who paid for medical help borrowed money or sold some of their personal belongings to cover the financial costs. Patients who seek medical advice tend to do so at later stages of their sickness....⁴⁹

4.2.2.5 Pharmaceuticals

⁴⁹ UNDP/Baku, op.cit.

The availability of drugs in both private⁵⁰ and public pharmacies remains a major constraint. One study indicated a four-in-five probability that a pharmacy would not stock a needed drug; if the drug were available for order, it would require two or more days for delivery in half the cases.

4.2.2.6 Perceived Quality

The number of visits to a health facility may not accurately reflect the quality or types of services offered to and used by the population.⁵¹ A UNICEF study of Kuba district revealed, for example, that 28 percent of cases were not satisfied with the care they received. One NGO, Relief International, has included quality assurance in its plans for training and follow-up to ensure some accountability in the use of primary health care protocols for diagnosis and rational pharmaceutical management. Relief International also plans to offer refresher training. In Kuba, nurses supervise organization of the ongoing work and continuing medical education of feldshers/FAPs. These activities help determine and direct community- and message-specific health promotion efforts. Nevertheless, a major obstacle is Azerbaijan's lack of tradition in primary health care. The official health system still clings to the hierarchical and overly specialized medical system of the FSU. In response, some NGOs have planned to train as volunteers already skilled individuals to serve as primary health care community health promoters.

In the face of government-imposed limits on permanent sites for services to IDPs, some NGOs such as Relief International have experimented with mobile clinics for outreach to such populations. Mobile clinics do not, however, provide a presence in the community for early response to disasters or crises that could result in death (diarrhea and dehydration, sudden acute lower respiratory infection, and postpartum hemorrhage). In addition, mobile units cannot monitor treatments that might require adjustments; and they cannot manage high levels of chronic illness such as hypertension. Nor can they offer preventive and primary health care activities such as growth monitoring, nutritional rehabilitation, effective public health education, or oral rehydration therapy centers. Overall, some studies have suggested that mobile clinics may undermine a covered population's ability to know when and where to seek care.

4.2.3 Priority Health Problems

Most people in Azerbaijan have access only to abysmal health care. Quality health care is available only to a tiny segment of the population. The health care available to most non-IDPs and refugees is no different than that available to vulnerable groups. Since independence, Azerbaijan has experienced a dramatic drop in its crude birth rate,⁵² a sharp increase in mortality rates, and declining life expectancy from 71.1 overall in 1990 to 68.9 in 1995.

⁵⁰ The majority of pharmacies have been privatized. However, licensing apparently has improved neither pharmacological knowledge and capabilities nor adherence to WHO drug protocols.

⁵¹ The number of visits may be affected by population shifts, degree of awareness, transport, ready cash, perception of severity, perceived versus actual need, change in treatment or admission policies, perception of quality, stockouts of drugs, increased income allowing patients to seek care elsewhere, and hidden costs of care.

⁵² The birth rate declined from 26.3 in 1990 to 17.1 in 1996.

A functional health information system does not appear to exist in Azerbaijan. NGO-collected health data are fragmented and not collated, mapped, or retained in a single repository. Moreover, Azerbaijan lacks an effective nationwide surveillance system that would allow early detection and reporting of disease outbreaks. The absence of a health information system, together with a lack of commitment to health reform and an inadequate infrastructure in health and other sectors, makes it difficult to secure a comprehensive picture of the population's health status. Until the government of Azerbaijan redirects attention to and resources within health, it is important to improve the population's knowledge and basic understanding in areas such as maternal and child health; reproductive health, including HIV/AIDS/STD control and prevention; and other primary health measures so that people can make informed choices with their meager resources.

4.2.3.1 Tuberculosis

All three Caucasus republics are experiencing a significant increase in TB, including drug-resistant cases. In Azerbaijan, TB affects nearly 7 percent of the population. ICRC in Baku indicates that the prevalence of TB in prisons is 42 times that of the already high prevalence in the general population. The MOH appears disinclined to adopt internationally recognized TB protocols for case finding and treatment. ICRC has led a prison-based TB initiative and hopes that a WHO staff person will be assigned to promote the DOTS protocol within prisons, which currently account for 2,000 TB cases. Almost one-quarter of the prison cases are multidrug resistant. The most disturbing fact about TB in Azerbaijan is that the drugs that should have been sufficient in quantity to meet needs to the year 2000 have already been consumed, lost, or stolen. ICRC staff in Baku suggest that simple resupply will not solve the underlying problem. MSF-Belgium is trying to encourage new health sector efforts at the central level to push protocols and at the regional level to gain the confidence and support of local authorities.⁵³

The lack of a national TB protocol and widespread drug resistance make TB detection, management, and control extremely difficult. In the absence of a national TB program that follows WHO protocols, treatment of TB will not be nationally standardized and will contribute further to the already high prevalence of multidrug-resistant cases.

4.2.3.2 Child Health

The infant mortality rate (IMR) has recently decreased after years of increase. In 1990, it was 23 per 1,000 live births; in 1993, 28.2; in 1994, 25.2; in 1996, it was only 19.9. The IMR is many orders of magnitude higher in the most vulnerable refugee and IDP populations, although the current rate cannot be definitively ascertained due to a lack of demographic baseline indicators beyond the resources of the GOAZ.

A Relief International survey (Berde, November 1996) of a population of 5,000 found that 20 percent of children had worms, 9.3 percent diarrhea, and 42 percent anemia; moreover, 69 percent of 12- to

⁵³ Personal communication to Clydetta Powell from ICRC staff in Baku.

23-month-olds had anemia. The incidence of low birth weight, at 17.4 percent, is indicative of maternal nutritional deficiency. In the same population, stunting at 32.4 percent was highest among children 12 to 23 months old. Weight for height Z-score shortfalls were highest among six- to 11-month-olds. Notably, though, 73 percent of infants were exclusively breastfed between zero and six months; however, 65 percent of six- to 12-month-olds were not breastfed at all.

Surveys by various NGOs indicate varying prevalence of diarrheal disease. In one study, 23.4 percent of IDP children under five years of age suffered from diarrheal disease in the two weeks preceding the survey compared to 15.2 percent in the resident population. In the survey, 40 percent of IDP children received oral rehydration solution compared to 27.6 percent of children in the resident population.

An STC study of the 20,000 IDP population served by UMCOR noted that 10 percent of all treatments are for diarrhea; the under-fives make up 40 percent of those cases, and 20 percent of under-fives have worms. An RI survey of Berde (November 1996) showed that 20 percent and 9.3 percent of a sample of 450 children had, respectively, worms and diarrhea. In a different survey, 16 percent of children under five years old had diarrhea within two weeks before the survey; less than one-third received ORS.

4.2.3.3 Vaccine-Preventable Childhood Diseases

In 1994, Azerbaijan adopted international vaccine standards, but application of the standards has been somewhat inconsistent across diseases, age cohorts, and perhaps geographic areas.⁵⁴ For example, a 1997 MSH-Holland household survey in five northwestern districts⁵⁵ found less than 40 percent polio immunization and BCG scarring in only 15 percent of children.⁵⁶ Similarly, a 1997 Relief International (RI) study found that more than one in five sampled children under age seven had measles and 14 percent mumps during the preceding five-year period. Further, although the country has been free of polio since January 1996, complete (all-dose) polio vaccination coverage is only 31.4 percent nationally (WHO 1996 study) but 50 percent in children age one to five (RI, November 1997 report) and as high as 97 percent in children under age two. Overall, however, vaccine coverage appears to be high. A 1996 WHO study showed that by age two years, BCG coverage was 96 percent; diphtheria coverage, 96 percent; measles coverage, 99 percent; pertussis coverage, 95 percent; and polio coverage, 97 percent. Tetanus coverage in 1994 was 90 percent. Importantly, on average there seems to be little difference in coverage between IDPs and resident populations.

Diphtheria was a growing problem in Azerbaijan in the early 1990s. In response, mass immunization began in December 1994 for six- to 11-year-olds and those older than 55 years. According a 1996 survey conducted by WHO, CDC, and UNICEF, the campaign led to “96.5 percent coverage,” with

⁵⁴ UNICEF has supplied vaccines since 1992. See UNICEF/Azerbaijan, Annual Report 1997.

⁵⁵ EPI/Maternity Survey in Five Districts in the Northwest of Azerbaijan—April–May 1997, MSF-Holland.

⁵⁶ Another small WHO survey (1996) of children 12 to 23 months old found scarring in 47 percent of cases. With potent vaccine, BCG scarring should exceed 80 percent. Whether the BCG problem is lack of vaccination or poor stock is unknown.

dramatic decreases in both incidence and case fatality. In 1996, there were 35 cases compared to 241 in 1995.

In confronting the challenge of expanded vaccine coverage, Azerbaijan must deal with major constraints such as poor management capacity at all levels, inadequate vaccine storage, sometimes inadequate levels of provider knowledge, power disruptions, and a general lack of public awareness. State immunization services depend on substantial inputs of donor-funded vaccines, equipment, and supplies.

4.2.3.4 Nutritional Concerns

Nutritional deficiency diseases are a major underlying cause of morbidity in Azerbaijan. Poor nutrition influences the severity and susceptibility, case fatality, and long-term consequences of many diseases.

Many feeding programs have attempted to address the nutritional needs of both RPs and IDPs. Food donors include WFP, USDA, IFRC, and ICRC. A 1998 World Vision International survey⁵⁷ found that 10 percent of children were moderately to severely malnourished and that over 80 percent of the surveyed population had skipped meals in the last week before the survey. Among Azeri children six months to ten years, neither acute undernutrition nor obesity was apparent; however, evidence of micronutrient deficiencies was rampant.⁵⁸ Both rural and urban children were shorter than reference groups. Prevalence of stunted growth among all Azeri children is eight to ten times higher than the expected prevalence of 2.3 percent in the reference population. The rate of stunting is of medium category compared to worldwide standards. Children of less educated mothers were at greater risk for stunting. Children under age five are especially vulnerable to poor nutrition in terms of both quality and quantity. Poor hygiene and worms, one of the most frequently seen illnesses in field clinics, compound the already precarious nutrition situation.

Young IDP children are at especially high risk for chronic malnutrition. In addition, these children, who were most likely born after their families were displaced, are at high risk for stunted growth compared to older IDP children, who were mostly likely born before their families were displaced. An RI survey of IDPs in four districts revealed that 49 percent of children under five were stunted, 22 percent underweight, and 8 percent wasted. In 1994 and 1995 surveys, 26 percent of children suffered from chronic malnutrition and micronutrient deficiencies. Moreover, some surveys have found worm loads of 8 to 12 percent, vitamin deficiency of 8 to 12 percent, and diarrhea in up to 2 percent of the samples.

A CDC/UNICEF/WHO health and nutrition survey (April 1996) of 1,197 Azerbaijani households in 55 districts and municipalities found the late indicators of food insecurity (chronic malnutrition in

⁵⁷ Survey of a 660-household sample of 188,000 IDPs, where the team performed mid-upper arm circumference of six- to 59-month-olds.

⁵⁸ Micronutrient deficiency examples include vitamin D deficiency commonly manifested as rickets in both resident and IDP children. One study found 69 percent of 12- to 23-month-olds with parasites and anemia.

children and the elderly; high rate of anemia and iodine deficiency) unacceptably high. The survey found that 30.5 percent of six- to 59-month-old IDPs suffered from acute malnutrition and that 22.5 percent in the resident population suffered from chronic malnutrition. Among the elderly, 10 percent of IDPs and 13.7 percent of the elderly resident population suffered from chronic malnutrition. In 1994, 74 percent of IDPs indicated they had no assets to sell, but the CDC/UNICEF/WHO survey showed even higher rates: over 90 percent in 1996 had nothing to sell to buy food.

Feeding programs have been largely targeted to those outside the Baku-Sumgait urban area because urban populations have better access to employment and other benefits. Three years ago, the WFP appeal was for resources to feed 350,000 IDPs. Now WFP's target has been reduced to 125,000 largely because of stricter identification criteria and documentation of a need system. As a result, duplicate registrations for food are largely nonexistent. Rations provide 375 to 1,545 calories per person per day.

4.2.3.4.1 Micronutrient Deficiencies and Anemia

Vitamin deficiencies rank second in the top five diseases reported by RI mobile health units. Poor dental care and substandard hygiene affect eating habits, potentially resulting in nutritional deficiencies. For a number of reasons, the country suffers from iodine deficiency disorders. Azerbaijan is in the goiter belt and lacks a national policy on the iodization of salt. One factory in Nakihchevan produces salt but has no iodine; two factories in Baku produce iodine but have no salt. UNICEF has been working with the GOAZ to establish iodized salt factories. Iodine deficiency leads to dwarfism, cretinism, miscarriages, goiter, and reduced ability to fight infection.

The prevalence of goiter underestimates iodine deficiency. Higher prevalence of goiter may be accompanied by other nutritional deficiencies among IDPs. Lower iodine stores increase susceptibility to radioactive iodine uptake. Lower goiter in rural areas may suggest goitrogenic environmental pollution (e.g., contaminated drinking water) in urban areas. One survey revealed that 23 percent of IDPs had stage I goiter compared to 9.8 percent of RPs. Iodine deficiency is endemic in northwest Azerbaijan; over 11 percent of men are afflicted with goiter. Iodine deficiency is the primary cause of preventable mental retardation, cardiac problems, HTN, and irregular menses (often misdiagnosed). One NGO (MDM-Greece) has been advocating the importation of iodized salt as well as government requirements for nationwide salt iodization.

Vitamin D deficiency manifested as rickets is commonly observed in both RP and IDP. Azerbaijani women keep their babies indoors and covered during first years of life such that children are not exposed to the sunlight needed to activate vitamin D. Moreover, the Azerbaijani diet lacks vitamin D. Consequently, health education interventions must counsel mothers on changing infant practices as well as adding vitamin D to the diet. Vitamin A is associated with the reduction of morbidity and mortality from diarrhea, measles, and ARI. Although Azerbaijan is not listed as a high vitamin A deficiency country, the diet is likely lacking this essential vitamin.

Anemia may have many causes, including primary blood disorders such as thalassemia, which is common among the population of Azerbaijan. Nevertheless, nutritional deficiencies (usually iron deficiency anemia (IDA)) and parasites are more common causes of anemia. A 1996 survey in 55 districts and municipalities found 46.1 percent of IDP 12- to 59-month-olds with anemia, similar to the 43.3 percent in the RP. In the same survey, 40.7 percent of IDP nonpregnant women had anemia, slightly higher than the 35.5 percent in the RP. One surprising finding was that 26 percent of men had anemia. Normally, IDA is rare in men; therefore, anemia means GI blood loss, parasites, malaria, chronic illness, vitamin B deficiency, and heavy metal poisoning (lead). An RI survey (Berde, November 1996) of 5,000 people noted that 42 percent of children were anemic; among the children, 69 percent of the 12- to 23-month-olds had anemia. In the same survey, 44 percent of all women were anemic (U.S. rates are 10 percent) and 88 percent of pregnant women were anemic.

A CDC/WHO report stated that almost 100 percent of 12- to 24-month-olds were iron deficient, along with 36 percent of nonpregnant women. Low iron intake, vitamin B deficiency, and excessive tea intake add to the high risk of iron deficiency anemia. Beta thalassemia is extremely common.

4.2.3.5 Maternal Health

The birth rate has declined in recent years, but the maternal mortality rate (MMR) has increased from 29 per 100,000 in 1990 to 40 per 100,000 in 1996, with a peak of 43.8 maternal deaths per 100,000 births in 1994. Almost 9.5 percent of women have had stillbirths. About 88 percent of pregnant women are anemic such that maternal death from peripartum hemorrhage is the leading cause of death. A 1997 maternity survey conducted by MSF-Holland in northwestern Azerbaijan found that home deliveries range from 31 to 35.5 percent. Approximately 23 percent of women did not receive any prenatal care during their last pregnancy, and many of those women do not view prenatal care as necessary.

In some surveys, 17.4 percent of births were low birth weight (LBW). Few children were exclusively breastfed, and 67 percent did not start breastfeeding on the first day, losing the advantage of colostrum. Given families' decreasing ability to pay and the poorer services available at facilities, only 68.5 percent of children under 12 months were born in a hospital. The percentage of hospital deliveries has been declining over the last four years. Nevertheless, UNICEF noted that five hospitals had achieved ten steps in the Baby Friendly Initiative.

A Relief International survey (November 1997) found that the average number of pregnancies is five to six, with 41 percent of women experiencing a miscarriage. In 8 percent of cases, the baby died in the first week of life. From 31 percent to 43 percent of the sampled women have a pelvic inflammatory disease or urinary tract infection. About 36 to 43 percent of the sampled women had an abortion, with the average at 2.4 abortions. As for birth control methods, 40 to 53 percent answered that they use contraception, although the study did not indicate which method; 37 to 51 percent of respondents knew where to get supplies but did not comment on ability to pay.

4.2.3.6 Reproductive Health

In the absence of pregnancy tests, the diagnosis of a pregnancy in the early stage is difficult to make. Many women tend to believe that they are pregnant if their menstrual cycle is only a few days late. This belief results partially from a great fear of pregnancy owing to economic concerns and partially from a lack of understanding of female physiology. Due to their lack of knowledge, women are unable to demand appropriate services, leaving them prey to profiteers or outdated and harmful thinking. For example, “Doctors as well as women regard abortions partially as sort of a hygienic matter which should be done at certain intervals to ‘clean out’ the uterus” (MSF-Holland interview).

Information channels are limited by individual women’s shyness and cultural values. In one survey, only 43 percent of women knew that breastfeeding had a contraceptive effect.⁵⁹ Two out of three women do not seek professional advice for reproductive health concerns and have access to few alternatives. According to one survey, 49 percent of women prefer to talk with friends and relatives, thereby often perpetuating misinformation or harmful practices and cutting themselves off from care they and their families need.

For STDs and HIV, no reliable statistics exist and no real diagnostics are widely available, although some estimates of women infected by STDs run as high as 60 percent.⁶⁰ As many as 40 to 60 percent of adult males temporarily leave IDP camps to work in Russia, where HIV and other STDs are epidemic. In addition, the increase in prostitution among young women in Baku and elsewhere, together with ignorance about STD transmission and inadequate treatment protocols, likely contributes to Azerbaijan’s suspected high STD rates. Presumptively, IV drug use is also an important route of HIV/AIDS infection in Azerbaijan as it is in much of the FSU.

In one 1997 survey, 55 percent of women had resorted to abortion, some as many as 16 times.⁶¹ Abortions may be performed by midwives. Of the women surveyed, 61 percent had more than seven pregnancies, but only 7 percent have more than six children, thus suggesting an inordinately high abortion rate. Moreover, women seek abortions outside of health facilities because prices are more affordable. Some official statistics indicate that abortions occurred at a rate of 18.2 per 1,000⁶² women of child-bearing age in 1993 compared to 14.7 per 1,000 in 1996.

One major problem is the absence of an effective family planning program in Azerbaijan; moreover, the government has no plans to institute such a program. As for contraception, a Relief International survey (July 1997) of ten rural and urban areas, which included five IDP camps and 25 IDP settlements, showed that about 20 percent of women use birth control pills, IUDs, injections, or condoms; there were 26.3 live births per 1,000 in 1990 compared to 17.1 in 1996. These statistics

⁵⁹ Relief International: Azerbaijan—Women’s Reproductive Health Program Summary 1997–1998.

⁶⁰ Personal communication to Clydette Powell and Kirsti Lattu by RI staff.

⁶¹ EPI/Maternity Survey in Five Districts in the Northwest of Azerbaijan—April–May 1997, MSF-Holland.

⁶² It should be noted that the 1993 official rate is markedly lower than that in Georgia and Armenia.

are coupled with abortion rates of 18.2 per 1,000 fertile women in 1993 compared to 14.7 in 1996; speculation holds that there has been an increase in illegal abortions.

In a maternity survey conducted (mid-1997) by MSF-Holland in northwestern Azerbaijan (five districts with a population of 452,000), a sample of 480 households with 477 mothers revealed that 9 percent of abortions are performed by women themselves. Abortion rates vary from 851 to 1,023 per 1,000 live births. Not a single woman wanted to change to abortion or no method as the means of family planning. From 71 to 81 percent of the women were displeased with their current method (85 percent relied on abortion, no method, or coitus interruptus). Among children under age two, 61 percent were breastfed.

Other surveys report that 35 to 45 percent of women are unable to obtain contraception, though all women said they were willing to use it. Only 9.5 percent can pay for OCPs and condoms while 16.7 percent use abortion as their only method. Many of the abortions are probably illegal as partly reflected in high MMRs. According to World Bank note, abortion deaths stemming from complications have risen by 370 percent in the last five years.

4.2.3.7 Breastfeeding

The prevalence of breastfeeding varies significantly among the groups studied. In one study, 45 percent of mothers breastfed for up to six months. In another survey, 73 percent breastfed exclusively from zero to six months, but only 35 percent breastfed from six to 12 months. In a third study, 65 percent of infants under age two were breastfed. A 1996 WHO/CDC/UNICEF health and nutrition survey discovered that more than 80 percent of mothers breastfed on demand but that none exclusively breastfed infants less than six months of age.⁶³ In a maternity survey conducted (mid-1997) by MSF-Holland in northwestern Azerbaijan (five districts with a population of 452,000 and a sample of 48 households), 477 mothers revealed that 61 percent of infants under age two were breastfed.

Supplemental products have less nutritional value than breast milk and can interfere with adequate breast milk production and consumption. Inadequate breastfeeding can lead to low iron intake for infants less than six months old; moreover, cow milk can induce GI bleeds and lead to IDA.

4.2.3.8 Shelter

A discussion about health cannot overlook the influence of shelter. To some extent, shelter is more of a problem for IDPs than for refugees (who occupy the vacated houses of Armenians); IDPs usually live in temporary housing, which is often inappropriate and crude. For example, while 30 percent of 610,000 IDPs live in private housing, 70 percent live in public buildings (including stadium grandstands), mud and reed huts, dugouts, railway cars, ad hoc settlements, and tents. Approximately 100,000 live in organized camps and ECHO settlements.

⁶³ Health and Nutrition Survey of Internally Displaced and Resident Population of Azerbaijan, April 1996, by USAID, WHO, and UNICEF, with assistance from MSF-Holland and Relief International.

The problem with housing such as cattle barns, hotels, and railway cars are legion: dangerous and ad hoc electrical arrangements, poor or no maintenance, collapsed plumbing systems, basements filled with raw sewage. Moreover, living conditions can be cramped, with inadequate cooking and washing facilities and little protection against the weather.

Deficient water service (plumbing, latrines, showers, and bath houses) means that every winter the population experiences an increase in scabies and other skin diseases. In addition, the population lacks potable water, and the SES often does not collect trash and keep public places clean. Only 56 percent of IDPs have access to enough water on a daily basis for bathing and cooking.

4.2.3.9 Mental Health

Mental health issues cannot be overlooked in populations that have been uprooted, relocated to distant and unfamiliar areas, and treated as strangers and with contempt and prejudice. Some individuals may have suffered the loss of a family member or spouse. They live in cramped, unhealthy settings, lacking in privacy and economic opportunity. After spending their limited resources on food, clothing, and essentials, few can entertain at weddings and funerals as tradition dictates. As a result, they experience anger, frustration, embarrassment, and an uncertain future. In addition, their feelings are accompanied by low self-esteem, a sense of dependency, high levels of anxiety, depression, low expectations for the future, and a mistrust of government. Deterioration of family life and an increase in community and domestic violence and drug and alcohol abuse mark the communities of the uprooted. The physically desperate nature of the circumstances mask individuals' psychosocial needs. Only some have developed coping mechanisms.

4.2.3.10 Degree and Frequency of Illness

The question arises as to the degree of illness among some of the populations served by international organizations. A UNICEF survey (November 1994) of 736 households in Kuba, whose health infrastructure is said to be similar to that of other districts in Azerbaijan, revealed interesting results. About 27 percent of households had at least one sick member in the last month; 5 percent of children under three were sick at least once in that month; 21 percent of illnesses were respiratory and 16 percent cardiovascular; 81 percent were chronic disease (19 percent acute); 18 percent were minor; 68 percent were of medium severity; and 14 percent were seen as life-threatening or severe. There was no significant association between degree of severity and socioeconomic status.

As for the site of service, a group of one- to 14-year-olds never used the FAP. Only 4 percent of cases used ambulatories regardless of severity; for medium cases, 13 percent stayed at home; for mild cases, about 41 percent stayed at home. Almost 72 percent of severe cases went to the district or Baku hospital. When hospitalization was recommended (61 percent of cases), little more than half of patients were actually hospitalized.

In a Relief International household survey (November 1997) of IDPs and refugees in four districts (25,000 population), a cross-sectional, three-stage cluster survey studied 1,860 persons, along with

growth measurements on 209 children. The control group had only slightly better statistics. Some 57 to 62 percent of the sick population did not seek medical care; 26 percent of the sample population could point to an ill person who did not get medical treatment. The study found a high continued level of undertreatment and reported that the Relief International mobile units neither increased the end quantity of services nor decreased the proportion of illnesses that did not receive medical treatment. The study also showed that the greatest impediment to patronizing health facilities is lack of ready cash, not transportation, freedom to travel alone, or distance to a provider.

In comparison with the controls, the study found that the Relief International group had better health knowledge but engaged in inconsistent preventive practices. The study also reported high parasite loads; a low-level of awareness of the severity of illness, a lack of knowledge about the warning signs of a sick infant, how and where to refer, and the need for better ventilation for acute respiratory illness and asthma; a low presence of immunization cards; and low knowledge among parents of their child's immunization status.

4.2.4 Past USAID Assistance in the Health Sector

Since 1993, USAID has funded health and family planning activities in Azerbaijan through its humanitarian assistance program. Limited by the provisions of Section 907 of the Freedom Support Act, the programs have focused on reducing the human suffering of refugees, IDPs, and vulnerable persons in Azerbaijan.

Currently, approximately 350,000 refugees, IDPs, and vulnerable persons have access to USAID-funded primary health care programs throughout Azerbaijan. The programs include fixed and mobile health clinics, reproductive health services, immunization, and health education. In addition, UNICEF has received funding for campaigns to control vaccine-preventable diseases, including diphtheria, polio, and measles. USAID has also supported water and sanitation projects in IDP camps. Other USAID humanitarian assistance programs with direct health implications include distribution of humanitarian pharmaceuticals; feeding programs serving approximately 200,000 refugees, IDPs, and vulnerable persons; and shelter rehabilitation and construction. The U.S. Department of State has donated medical equipment and supplies as well as food.

USAID's recently initiated Azerbaijan Humanitarian Assistance Program seeks to respond in a timely and cost-effective way to the evolving needs of IDPs and other vulnerable groups and to identify ways to make programs more self-sufficient. For USAID, the challenge in assisting Azerbaijan in the health sector will be to continue reducing human suffering while starting to pave the way for a more development-oriented program in a manner consistent with the provisions of Section 907.

As one step in that direction, S/NIS and ENI agreed to establish a hospital partnership in Baku during the summer of 1998. The partnership will initially be designed and implemented through a subgrant from Mercy Corps International and subsequently folded into the NIS Health Partnership Program when a cooperative agreement is signed.

4.2.5 Other Donors

Assistance by the United States government for humanitarian aid activities in health for Azerbaijan is mainly implemented through SCF's umbrella grant (until early 1998), MCI's new umbrella grant (as of spring of 1998), and subgrantee partners (who are also using a mix of private, cost-share, and oil company funds), such as IRC, Relief International, ADRA, World Vision, Counterpart International, Children's Aid Direct, UMCOR, and others. Major oil companies that have supported humanitarian aid and community development projects implemented by NGOs (not necessarily limited to health) include Mobil Oil, Texaco, and Unical. Other international donors active in the health sector in Azerbaijan include ECHO, UNICEF, Soros/OSI, ISAR, World Bank, UNDP/UNFPA, and WHO while European NGOs such as MSF-Belgium and MSF-Holland have long been active in the country alongside international organizations such as ICRC and IFRC.

Limited by the FSA-907 restrictions, U.S. government assistance has been able to undertake little beyond care-and-maintenance projects for the IDPs, refugees, and approved vulnerable groups. A few NGOs such as RI and IRC, however, have begun using innovative community development approaches to strengthening the breadth and depth of their health services, shifting from less sustainable operations such as mobile health units.

Although efforts by MSF groups and ICRC are maintaining the pressure on the government to reform its systems, concepts of health care, information systems, management styles, and quality of health care with respect to issues such as TB control, EPI, and reproductive health, the donor that has progressed furthest in engaging the government in any meaningful way is UNICEF. UNICEF has initiated a model district management support project that started in two districts and is about to expand the program into another six. Other efforts such as those recently attempted by the World Bank came up against a lack of interest among central MOH authorities.

Given the political restrictions affecting higher levels of U.S. involvement and the financial constraints that are beginning to reduce the level of resources that European donors/NGO can commit to Azerbaijan, it is imperative that even the smallest investment in health be made in a strategically advantageous manner. Strategic investment is particularly pertinent because of the imbalance of power between a population long deprived of opportunities for a more acceptable standard of health care and a government that is at best indifferent and generally unwilling to institute health care reform.

4.2.6 Recommendations

•	<u>Budget</u>	Reproductive Health	FY98 - 0.0;	FY99 - 0.3;	FY00 - 0.3
	(all estimated)	Partnerships	FY98 - 0.3;	FY99 - 0.5;	FY00 - 0.5
		Other	FY98 - 1.0;	FY99 - 2.0;	FY00 - 2.0

4.2.6.1 Selected Options for USAID Consideration

Now is an appropriate time for expanding health programs in Azerbaijan, but it is not a good time to invest in health sector reform at the central level. Nonetheless, within the constraints of the Section 907 provisions and the very limited role that Azerbaijan's government, including the Ministry of Health, has chosen to play to date in directing health care sector reform, the team's recommendations to USAID regarding Azerbaijan closely parallel those for Georgia and Armenia and are detailed in the Recommendations section of the Options Matrix (Section 2.1). We urge support for

1. information, education, and communication efforts in reproductive health;
2. replication and expansion of UNICEF's current Azerbaijan demonstrations to enhance community and provider activities in primary health care and to help cooperatively formulate new roles, rights, and responsibilities that respond effectively to changes within the health care system; and
3. improving the health information system.

The Options Matrix (Section 2.4) provides additional options, including the potential management burden and intermediate result goals.

4.3 Georgia

4.3.1 Socioeconomic and Political Context

Of the three Caucasus republics and indeed of all the former Soviet Union countries, Georgia suffered the most serious economic decline following independence. Real GDP fell by approximately 90 percent between 1991 and 1994; the decrease in gross industrial output was even more dramatic and did not reverse itself until 1996. During much of that period, hyperinflation raged, with consumer prices rising by 15,606 percent in 1994. The following year, however, in response to economic restructuring undertaken with the help of the International Monetary Fund (IMF), consumer prices rose by “only” 163 percent and by 1997 had receded to single digits. Despite these massive economic dislocations, Georgia’s 1995 GDP per capita income of \$440⁶⁴ for its 5.4 million inhabitants was approximately a quarter higher than that of the other two Caucasus republics.

Like Armenia and Azerbaijan, Georgia has engaged in substantial military conflicts. Specifically, it has incurred significant costs in seeking to prevent the breakaway of South Ossetia and Abkhazia. In the case of South Ossetia, Georgia agreed to a cease fire in mid-1992. As for Abkhazia, both sides have committed to a peaceful resolution of the conflict, but progress has been sporadic at best. Indeed, during the Assessment Team’s visit to Georgia, renewed fighting in Abkhazia forced the U.S. embassy to close the border area to Americans the same day that two team members returned from there. Efforts at secession in South Ossetia and Abkhazia and localized earthquake damage in 1991 have led to large numbers of internally displaced persons (IDPs).

Georgia’s relations are stable or improving with Armenia, Azerbaijan, and Turkey. Benefiting from its relative neutrality in the Azerbaijan/Armenian conflict and its convenient location along various approved and potential routes for the Caspian oil pipelines to the Black Sea and Turkey, Georgia is clearly capitalizing economically on its unique political and geographic advantage with respect to trade, government, and other relations in the region. Relations between Georgia and Russia remain tense, however, because of the latter’s role—real or perceived—in the continuing conflict in Abkhazia, its support of certain opposition groups (e.g., Zviadisti), and its possible involvement in several attempts on the life and safety of the Georgian president. Moreover, Russia views Georgia’s expanding role as a route of oil export from Azerbaijan as a threat to its current oil transit revenues.

At 8 percent in 1996, Georgia’s tax revenues as a proportion of GDP are the lowest of any FSU country largely because of low collection rates. Tax and customs administration have been revamped in the past two years such that collections have improved somewhat. The 1998 target for tax revenues is 13 percent of GDP.

Georgia has substantially liberalized its trade policy and regulations, revamped and reduced its customs import duty rates, and abolished its export tax. It applied for membership in the World

⁶⁴ Curatio International Foundation. Interestingly, the European Bank for Reconstruction and Development in its *Transition Report 1997* gives 1995 GDP per capita as \$530 and estimated 1996 GDP per capita as \$841—90 percent greater than either Armenia or Azerbaijan.

Trade Organization in mid-1996. A member of the CIS, Georgia signed a partnership and cooperation agreement with the European Union in 1996. It has established free trade agreements with Armenia, Azerbaijan, Russia, Ukraine, and other countries of the FSU.

4.3.1.1 Privatization and Investment

With more than 65,000 small businesses registered, the private sector is growing and accounts for more than 55 percent of GDP, 85 percent of agricultural output, and 74 percent of government tax revenues. Privatization began in 1993; by 1998, more than 90 percent of all small enterprises had been privatized. While some enterprises deemed of strategic importance—mostly in energy and mining—are to be retained under state ownership, more than 1,000 medium and large state-owned enterprises have been scheduled for privatization and half had been successfully spun into private hands by mid-1997, mostly through cash auctions. Under revised privatization laws passed in mid-1997, foreign investors are free to participate directly.

Privatization of agriculture, the largest component of GDP at over 30 percent, is now underway following the March 1996 passage of the Law on the Ownership of Agricultural Land. In 1996, the government also undertook a major restructuring of the energy sector and substantially increased the price charged for electrical power.

4.3.1.2 Social Summary

Georgia's government has been stable. Compared to the other two Caucasus countries, Georgia has probably made the greatest strides in attempting to resolve the territorial conflicts that have plagued the nation since independence. For example, a recent proposal for a confederacy arrangement with South Ossetia (Samachablo) reflects the gradual thaw over the past several years in relations with this previously autonomous oblast. Relatively few restrictions or risks interfere with the regular movement of high-level officials, negotiators, NGOs, and travelers across the border/frontline dividing South Ossetia from the rest of Georgia.

Unfortunately, relations with Abkhazia show no improvement. Ethnic Georgians who had sought to return to Abkhazia, from which they were driven out in 1993, were attacked in May 1998, forcing tens of thousands to flee again. Consequently, significant return to Abkhazia of the estimated quarter million IDPs currently residing in Georgia is highly improbable over the near term.

A dynamic parliamentary system, an active mix of political parties, and an involved civil society all reflect an increasingly healthy polity in transition to full democracy. Although the central government continues to appoint regional governors/mayors who, in turn, appoint their regional/municipal governments, elections for local governments are officially planned for Fall 1998.

Georgia has established a Social Security Fund that provides old-age, invalidity, and widows' pensions while the Employment Fund provides unemployment and employment-related sickness, worker, pregnancy, and maternity benefits. In 1996, about one-third of the population was receiving

transfer payments that averaged approximately \$7.60 at then-prevailing exchange rates. Social transfer payments had been 2.6 percent of GDP in 1995 but increased to 3.2 percent in 1996.

In common with the other two Caucasus republics, Georgia's literacy rate approaches 100 percent. From its nadir of only a few years ago, Georgia continues to make impressive strides in its macroeconomic performance, as evidenced by a stable currency, consistently low inflation, and a higher-than-expected growth rate (reportedly over 10 percent for FY 1997). Nonetheless, despite initial appearances of modest prosperity in Tbilisi and fertile land in rural areas, many Georgians as well as the overwhelming majority of IDPs do not yet enjoy the benefits of recent economic gains.

4.3.2 Health

During the Soviet era, Georgia's health care system, like that of its neighbors, was established on a centralized, command-and-control model characterized by Moscow-based planning, incentives to overtreat, publicly owned and financed facilities, and hospital- and specialist-dominated care. At the primary level, high among providers' functions was approval of workers' employment absences on health grounds and passing on to polyclinics and municipal, district, and republican hospitals responsibility for all but the most basic care. Health care institutions in Tbilisi and Moscow provided the highest level of care on referral from polyclinics and lower-level hospitals.

With independence, Georgia simply did not have the resources to maintain the delivery of free care. A combination of economic, political, and military crises as well as administrative failures led—seemingly inexorably—to the breakdown and failure of the health system; these problems, however, had surfaced before independence in all three Caucasus republics. Not surprisingly, Georgia found itself vastly overbedded and overstaffed by physicians and other health care workers whose government salaries were increasingly inadequate and who, as a consequence, imposed substantial formal and informal payment requirements on users. In a devastated economy, the sick became less and less able to afford out-of-pocket payments such that increasing numbers simply turned away from the health care system. As a result, health facilities experienced a low volume of activity as well as patient dissatisfaction with the limited services and supplies, including pharmaceuticals. Further exacerbating these problems was growth in the number of physicians as private medical schools of varying quality sprang up.

The following indicators reflect the health care system's decay:

- dramatic growth in home births accompanied by increased infant and maternal mortality rates;
- reduced birth rates;
- decreased real resources devoted to the health system, with disproportionate decreases in real state contributions;
- substitution of formal and informal fee-for-service, out-of-pocket patient payments for state monies;
- nonpayment of and growing arrearage in nominal physician and health worker salaries, which themselves accounted for a decreasing share of costs;

- growing inadequacies in the availability of pharmaceuticals and supplies at all levels;
- inadequate facility maintenance; and
- growing consumer dissatisfaction and reduced patient load.

4.3.2.1 Reform

Against a backdrop of inadequate resources to maintain adequate state-funded health care, the MOH undertook a program of activities in 1993 to establish a set of principles to guide health reform. With the support of the World Bank and other donors over a two-year period, the MOH crafted a strategy that essentially came to fruition concurrently with a new national constitution. Major components of that strategy included

- creation of a legal basis for the new health system;
- decentralization, with policy retained at the central level and administrative functions delegated outward and downward;
- development of a sustainable health financing system, including the introduction of a basic benefits package, a shift in financing responsibilities from the central government to patients and regional and local administrative units, and development of a social insurance system;
- development of personnel licensure and facility accreditation programs;
- reductions in the surplus of beds and physicians⁶⁵;
- reform of medical education and reining in of unfettered private medical education programs;
- a focus on prevention and primary care in lieu of the former emphasis on hospital-based and specialty care; and
- reform and enhancement of the health information system.

Many of these components are in varied stages of implementation and are supported in large measure by a \$14 million four-year loan from the World Bank and technical assistance from WHO and a variety of international and bilateral donors.⁶⁶

Despite Georgia's considerable progress in implementation, several factors put that progress at risk. Imperfectly and incompletely but persuasively, the State Medical Insurance Company (SMIC) has been formed. It is paying bills for services and currently covers approximately 10 percent of the population. On several occasions, however, Parliament has reconsidered the scope and nature of insurance and whether and to what extent private companies will be allowed to participate. At present, the SMIC is responsible for financing programs that cover the following:

⁶⁵ Indeed, substantial though insufficient reductions have already taken place. In 1991, there were 31,700 physicians; by 1995, the number had decreased to 22,000; the number of beds had declined from 57,300 to 42,900; and population per bed had grown from 95 in 1991 to 125 in 1995. Licensure and accreditation are likely to secure further reductions while improving quality.

⁶⁶ The largest component of the World Bank loan, known as "Health Project I," is allocated to rehabilitating and maintaining health facilities and equipment. Three facilities will be rehabilitated and outfitted with necessary medical equipment at a cost of \$11.6 million. A second loan for \$20.6 million, "Health Project II," is currently under preparation. It is expected to focus on strengthening primary care and the health care financing system at the national and local levels.

- TB;
- childbirth;
- services for children from birth to two years of age;
- oncology;
- psychiatry; and
- vulnerables.

The central government is responsible for financing a large part of the SMIC's costs as well as preventive/public health programs and a set of 14 small-scale programs. In 1997, however, the state health care budget received only 53 percent of its total planned financing and therefore allocated only 60 percent of the planned budget to the SMIC, only 30 percent to preventive/public health programs, and only 53 percent to the 14 minor programs.

Municipalities are responsible for 50 percent cofinancing of all hospital emergency cases and capitation payments for outpatient services. Here, too, municipalities funded significantly less than planned or required.

As a result of underfunding at all levels, government and government-related entities reimbursed providers for only 67.5 percent of allowed charges. Another consequence of inadequate resources is that government must undertake many of the components of reform serially, prolonging the process and delaying the ultimate benefits.

In addition to Parliament's occasional indecision and the problem of inadequate funding, Georgia faces another significant risk factor: ignorance about and/or disinclination toward reform among key participants. On the bureaucratic/administrative side,

...[The] MOH strives to delegate almost all administrative and financial functions as well as certain decision-making responsibilities to the lower levels of administration. Probably the MOH is among the few agencies within the government which really wants to retain policy making function and relieve itself of administrative tasks. But surprisingly, recipients are reluctant to accept additional power and corresponding responsibilities. Thus the delegated functions are hanging somewhere along the administrative axes (sic). Maybe low level administrators believe that delegated power and responsibilities are not congruent, or they realize (sic) that they don't have enough capacity at the present to handle the realignment of authority. Correspondingly the [health care reform] implementation process progresses much better on the upper level, compared with municipal, regional, district or institutional levels.⁶⁷

Indeed, even within the Ministry of Health, it is the highest echelons that seem to demonstrate the broadest vision, the greatest recognition of the trade-offs necessary between the desirable and the "do-able," and the deepest dedication to the sweeping scope of reforms now taking root.

⁶⁷ UNICEF/HealthNet International, *Health Care Reforms in Georgia: An Analytic Overview*, p. 15.

On the provider side, Georgian health care professionals, like their counterparts in virtually all of the FSU, historically have had a limited role in either policy analysis or setting the terms and conditions of their own work. By and large, physicians in Georgia seem to see few benefits of reform; if they consider reform at all, most would conclude that their traditional roles and work patterns are at risk. Past roles and work patterns undermine the solutions to today's health care problems; change is necessary, but change is threatening.

Finally, on the citizen-patient side, established habits and patterns of behavior are hard to break. The peoples of the FSU do not have a long history of citizen participation in policy development, and their current leaders are certainly not used to seeking it. In developing health care reform proposals, the MOH and government of Georgia did little to involve citizens and patients. And, for most Georgians, the day-to-day challenge of securing shelter and sufficient food borders on the all-consuming. Consequently, those who once saw health care as a "free good" are distressed at the loss of that benefit.

In sum, though desirable and "obvious" to the health analysts of the World Bank, WHO, and the Assessment Team, the content and theoretical construct underlying health care reform in Georgia do not resonate naturally with providers, consumers, and much of Georgia's bureaucracy. In a phrase, "most just don't get it," and the process of informing, educating, and communicating new roles, rights, and responsibilities has hardly begun.

4.3.2.2 Access

As with the other Caucasus nations, access to care in Georgia is limited primarily by costs rather than by geography, although winter presents special problems. It is estimated that direct out-of-pocket payments represent almost 84 percent of total national health expenditures while the state contributes slightly more than 16 percent. For those households incurring health care expenses, the average monthly cost in 1996 was \$14, representing 38 percent of the average household monthly income of \$37. But income disparity within the country is substantial, and national averages obscure important financial access difficulties. Fifty-two percent of Georgian households are below the subsistence level, and the richest 20 percent of the population earns income 85 times that of the poorest 20 percent. In fact, virtually all of the poor and many others are simply priced out of most services.

A special note is in order regarding access. The SMIC has started issuing vouchers to vulnerables such as IDPS, who are entitled to free care. Every year for a five-year period, each eligible person receives five coupons for treatment and five coupons for laboratory services. IDPs report that they pay less for services than the average Georgian upon presentation of their vouchers, which are billed as free to their socioeconomic group. In Zugdidi, IDPs receive some services at a separate facility.

One health center manager stated, however, that he had not been reimbursed in the preceding five months for treating vulnerables who presented vouchers. It will not be long until the delay or failure to reimburse good faith efforts to honor vouchers likely forces health facility managers to refuse to

accept vouchers for provided services. Reimbursement issues are therefore one more constraint that will limit the poor's access to health care.

4.3.2.3 Pharmaceuticals

Before 1991, the state was the only body involved in the provision of pharmaceuticals. Medicines were accessible, strictly monitored, and of good quality, although the list of available drugs was not based on market demand. Following independence, the state was no longer able to enforce existing regulations such that a small but private and highly entrepreneurial market emerged.⁶⁸ Private sector licenses allow for huge quantities of imports coupled with imports by humanitarian agencies.

A National Essential Drug Program has been initiated. In theory, state programs provide free or subsidized medicines for in-patient treatment and, on a limited basis, a few out-patient programs. In reality, availability has failed to match needs, and patients often have to purchase their own drugs and bring them to the hospital. In terms of health-seeking behavior, one health manager in Kutaisi summed up the current situation by commenting, "Most of the population comes for medicine, not for treatment."

4.3.2.4 Perceived Quality

A 1997 survey undertaken for the World Bank paints a uniformly bleak picture of consumers' reaction to reform and the health system.⁶⁹ The respondents viewed health care as good that was available and free in the preindependence years but financially inaccessible in the postindependence era. And because of costs, many turn to unlicensed and unqualified care givers even though they recognize that they are receiving poor-quality care.

At a December 1997 seminar, a working group for the Georgia Program for Strengthening PHC/PH Services/HIS listed several constraints to the program's goal: poor qualifications, skills, and performance of clinical staff; inadequate supplies and equipment for essential diagnostics; inadequate diagnosis, registration, and treatment; overdiagnosis and reporting due to payment policies; inefficiencies in specialized laboratories; lack of identification and investigation of high-risk groups; and lack of awareness among the general public of health problems and risk.

The Assessment Team made an unplanned visit to one "showcase" regional health center where senior-level managers enjoyed the additional benefits of international training and the center itself had collaborated with an international NGO. The team noticed attractive wall graphs that the managers contracted out for production but saw almost no evidence that the training had led to changes in the delivery of services. In response to minimal patient flow, managers proposed attracting more clients with purchases of improved medical technology, such as sonography equipment, but mentioned

⁶⁸ Wholesale companies grew from six to over 110 and private retail pharmacies to approximately 2,200, with many operating without a formal license and none reportedly meeting the good manufacturing practice standards.

⁶⁹ Catherine Silansky, "A Qualitative Stakeholder Analysis of the Progress of Health Reform in Georgia." The World Bank Project Coordination Unit—Georgia Health Project, June 1997.

neither cutting back on overstaffing nor asking directly for client feedback. Among staff, absenteeism and short hours were apparent. Obvious, too, were private medical activities on the side.

The Georgian medical system is said to be ten to 15 years out of date in training. Competency-based education is not available in the maternal and child health fields. Most medical and nursing schools are not accredited. Individuals must arrange specialty training through apprenticeships or preceptorships.

4.3.2.5 Health Information Systems

Since 1994, WHO and CDC have been working with MOH and regional staff to develop an HIS. To date, they have selected and revised essential health indicators, identified priority programs, contributed to health policies, revised routine records, held seminars on a regional database, and developed a surveillance assessment design, with field work in some areas.

As far as cross-country strategies, the Georgia MOH, with support from WHO and CDC, has identified the intercountry health information network as a regional focus. It proposes to initiate communications with the MOHs of Armenia and Azerbaijan and to establish network communications for sharing disease data.

At a December 1997 seminar, a working group for the Georgia Program for Strengthening PHC/PH Services/HIS listed a number of constraints to the operation of the HIS: different surveillance and notification procedures for various ID; no surveillance for noncommunicable diseases; nonrepresentation of the current health situation by existing disease and service data; inadequacy of the data system for management needs, service strategy, and system revision; various recording and reporting formats; and lack of awareness of international standards of disease control. Key areas call for developing the following: clinical procedures guidelines; a methodology for assessing clinical performance; in-service training methods and material for the PHC level of services; an STD/HIV health education program for schools, health care providers, and public media; a set of management methods and procedures for use in regions and rayons; functional descriptions and procedures for an integrated public health laboratory system; regional health indicators databases; and an active Internet-based system for sharing surveillance and other health information among the three Caucasus nations. The program also envisions a long-term public health training center with a field epidemiologic training program as the core activity.

4.3.3 Priority Health Problems

4.3.3.1 Tuberculosis

TB has increased markedly since dissolution of the FSU and the end of the war in Georgia. Between 1989 and 1996, the number of TB cases in Georgia increased from less than 2,000 to over 16,000, not including the 4,000 Georgians with a chronic drug-resistant form of TB who will die because of

inadequate treatment.⁷⁰ Georgia's crude incidence of reported cases in 1995–1996 was 327.8 per 100,000 population, higher than the estimated rate for 1995. Annual incidence (new cases) has been estimated at 105.2 to 177.8 per 100,000. About 85 percent of TB cases are pulmonary. The IDP population is said to have a two to three times greater incidence of TB than the general population. TB is a major problem in prisons with 5 to 10 percent (800 cases annually) of the prison population afflicted with active TB.

Implemented in 1995, the National TB Program (NTB) has noted that about one-third of all treatments fail due to noncompliance. Specialized TB facilities have not followed the DOTS and have not been accessible to most patients. Only 55 percent of multidrug-resistant cases can be cured. Case detection is problematic owing to the poor quality of smear microscopy and laboratory services and facilities, which, in turn, is a function of inadequate resources, outdated equipment, and poor staff training. The past reliance on chest X-rays for case detection is outdated and not cost-effective. The Atlanta-Tbilisi Partnership proposes to assist in training regarding directly observed therapy, DOTs, improving laboratory support, conducting a drug susceptibility survey, and evaluating patients who are coinfecting with HIV.

Within the region, Georgia's NTB program is not only ahead of its neighbors in terms of standardized treatment protocols, but it is also proposing to integrate with general medical care and PHC service. The national program budget stands at approximately \$2,800,000; in-patient costs are ten times greater than out-patient costs. Of the 1,000 hospital beds in the country, 570 are in Tbilisi. More specifically, with the support of the Atlanta-Tbilisi Partnership, the NTB plans to decentralize care from TB facilities and to integrate TB care into PHC practice outside the capital city. The goal is to decrease noncompliance, improve cure rates, and upgrade laboratory diagnostic skills for primary detection of cases.⁷¹ The program will be pilot tested in Gori district; PHC units and nurses will be trained as case managers and social workers. To support the work, the CDC has just completed an HIS project in Gori for a case-based surveillance system. In addition, 12 microbiology laboratories (one for each region) are planned. GTZ will fund an IEC around TB later in 1998.

4.3.3.2 Sexually Transmitted Diseases (STDs)

Data on STDs are lacking in large part because programs for STD prevention and treatment are vertically organized. Moreover, the absence of both a medical referral system and clinical practice guidelines as well as flaws in the communication and transport system contribute to the problem of poor data and inadequate treatment. The 75 facilities in Georgia that can provide STD care and treatment do not promote symptomatic treatment as recommended by WHO. Delayed treatment and

⁷⁰ National TB Program and ICRC Reports, reference no. 2.

⁷¹ This will leave the more difficult referral cases such as pediatric TB, abscesses, and complicated pneumonia for the TB Institute (TBI). The MOH has accepted this strategy, but the TBI senses resistance on the part of doctors.

high infectivity resulting from economic migration⁷² may mean increases in HIV incidence (facilitated by STD infection). Increasing numbers of unskilled abortions (septic techniques), more liberal sexual behavior, and inadequate health education are all factors in the increase in STDs and secondary infertility.

A public self-supporting institute, the Tbilisi Dermato-Venereology Disease Research Institute, collects information from each venereal dispensary in Tbilisi as well as from prenatal clinics, although it has difficulty collecting data from private consultations and from outside Tbilisi. The incidence of trichomonas is rapidly increasing, with possibly four out of five women infected. The STD rate among refugee women appears to be growing.

The institute charges approximately \$70 for syphilis treatment; private sector providers charge \$200; nonetheless, some patients patronize private providers—and pay significantly more to do so—because they are assured confidentiality. Fear of discrimination or publicity may mean that some patients do not seek treatment at all.

4.3.3.3 HIV/AIDS

A National AIDS Registry was organized in 1988. Of the 50 reported cases of HIV/AIDS, 17 had AIDS and nine died. The majority of the cases involved men, with intravenous drug use the main route of transmission in a little over half the cases. The fact that 52 percent of the cases were reported in the last two years supports perceptions that the HIV/AIDS epidemic is rapidly escalating. Based on analogies with other former Soviet countries, Georgia offers an opportunity for prevention efforts before the epidemic becomes too large and costly to handle.

The following factors contribute to Georgia's HIV/AIDS epidemic:

- Some 60 percent of HIV cases are intravenous drug users (Healthnet).
- In 1994, only 19 percent of blood donors were screened for HIV.
- The number of commercial sex workers is increasing.
- Only 60 percent of blood is screened for HIV.
- Georgia lacks a genuine blood bank.
- The government-supported AIDS center suffers from electrical outages and inadequate test supplies.
- Tattooing is a common practice.
- Poor protection of health workers (failure to cap needles, absence of collection containers, few gloves, inadequate protection during surgery) and lack of proper sterilization result in needless exposure to disease.
- Providers lack information on universal precautions.

⁷² Ukraine—where “the number of newly diagnosed HIV infections increased from 40–80 per year from 1988 to over 1,500 per year in 1995–96. Similarly, there has been a tenfold increase of the number of syphilis cases in Ukraine between 1991–1995” (Atlanta-Tbilisi Partnership Plans 1998–2000 Working Draft, p. 17)—provides a sobering example of the scenario that could well unfold from a failure to prevent the spread of HIV.

Current health education approaches may be counterproductive. A series of four posters for a national health education campaign on HIV prevention was fear-based and uninformative about how to prevent infection.

The budget for the national HIV/AIDS program for FY 1997 was \$1 million for prevention, surveillance, clinical care and training, and administration.

With regard to high-risk groups, homosexuality was a crime under the Georgian criminal code until 1992 and was punishable by up to eight years in jail. Homosexual men generally do not use condoms. As for drug addicts, 4,000 are officially registered as addicts. They are usually young people between 18 and 25 years old; women make up 10 to 15 percent of the total. There are 2,000 registered intravenous drug users. Official registration statistics aside, a better estimate of drug users may be 50,000. Porous borders and the geographic isolation of Georgia make it a transit state for drugs. A final high-risk group is commercial sex workers. Many are young girls or prostitutes coming from Turkey.

The establishment of the Georgian National AIDS Program in 1993 was followed by the passage of laws for mandatory testing and widescale sexual health education campaigns. Although voluntary testing is available on request, HIV testing has become compulsory only for blood donors and is carried out in less than one-fifth of the donated units. Moreover, the cost of blood screening is 5 to 37 lari (approximately \$4 to \$28). Some patients apparently are eligible for free screening, but relevant health care workers were unsure who qualifies for the exemption.

4.3.4 Primary Health Care Issues

Although contestable, the latest figures state that the infant mortality rate is 18 per 1,000 live births. Other estimates⁷³ are nearly double this figure, with the IMR closer to 35 per 1,000 live births. The numbers are rising, in part possibly because of better reporting but also because basic primary health services are deteriorating. Although acute respiratory illness has been the leading cause of infant mortality, perinatal causes now top the list.

4.3.4.1 Vaccine-Preventable Diseases

A 1998 CDC report notes that diphtheria peaked in 1995 with 429 cases and has not declined as rapidly as expected.⁷⁴ Children under 15 years old accounted for 47 percent of cases and 60 percent of deaths. In 1996–1997, 40 to 50 percent of adult cases were unvaccinated as were 64 percent of deaths among adults. Reported DPT3 coverage for 1992–1995 was less than 60 percent but more recently was said to be 83 to 92 percent. CDC doubts these figures because of large discrepancies

⁷³ Alfred Brann, M.D., Emory University School of Medicine. Personal communication with Clydette Powell.

⁷⁴ UNICEF funding grants from USAID for 1996–1997. Includes immunization in all three Caucasus countries, sick-child initiative in Azerbaijan, etc.

in reporting and population size estimates. The 1996 UNICEF reports put the Tbilisi coverage at only 39 percent, with Abkhazia as low as 28 percent and Kakheti as high as 96 percent. In addition, WHO standards for vaccination, contraindications, and case management may not be consistently applied.

Immunization coverage has increased since the 1995 childhood disease peak. Coverage for polio is now 96 to 97 percent, and diphtheria coverage is estimated at 92 percent or higher.⁷⁵ In addition, rates of acute respiratory infection and diarrheal diseases have dropped. Much of the success in primary health care and preventive health initiatives is the product of UNICEF strategies for tackling childhood diseases.

4.3.4.2 Reproductive Health

With Georgia's maternal mortality rate exceeding that of Armenia and Azerbaijan (the data from the latter two countries may suffer from considerable underdetection), reproductive health issues remain a priority. Half of maternal deaths occur in women under 30 years of age. Abortion is the primary means of birth control. Analysis of the 1997 MMR indicates that 22.9 percent of deaths resulted from abortion; the average life-time abortion rate was 3.73 per woman and may be higher.

Although abortion, perceived as less costly than other methods, is a widely practiced method of FP, the church does not actively voice its opposition. Oral contraceptive pills are sold only by prescription, but neither they nor IUDs are widely available. On the other hand, condoms are easily obtained in pharmacies. A 1996 survey of knowledge, attitudes, and practice showed that one-third of 20- to 39- year-olds were aware of family planning concepts but that only 10 percent understood the details of family planning techniques. Most information regarding family planning comes from sources other than health care professionals. Medical, nursing, midwifery, or pharmacy students receive no training in FP; limited training started in late 1997 for gynecologists and some midwives.

Study after study has indicated the need for IEC targeted to both women and men. The dramatic fall in birth rates secondary to increasing rates of abortion for purposes of contraception demonstrates that families need better information regarding contraceptive choices to ensure more informed decision making.

While previous studies have evaluated the status of reproductive health in Georgia, certain facts bear repeating. The problem of STDs and HIV/AIDS and the need for family planning continue to grow rapidly. Statistics vary widely among sources (e.g., CPR for Georgia ranges from 25 to almost 30 percent), but all indicate that incidence rates are increasing dramatically even as preventive, diagnostic, and treatment programs remain inadequate. Lack of funds has precluded the government of Georgia from including family planning services in its basic benefit package.

Other related findings follow:

⁷⁵ Epicenter (Andre Sasse), Diphtheria Outbreak in Georgia, 1994.

- Maternal mortality rates of 57.8 per 100,000 live births are four times the WHO target for the European region.
- Almost one-half of deaths occur among women under 31 years of age.
- Lack of infrastructure, the introduction of payment systems for prenatal care (theoretically free), and geographically limited access have contributed to more home births.
- About 23 percent of births are to unmarried women.
- The perinatal infant mortality rate is 20 to 39 per 1,000; 40 percent of infant deaths occur in the first seven days and 80 percent in the first three days.
- Both high abortion rate and low prevalence of modern contraception (1 to 2 percent) have led to a dramatic fall in the total number of births per year.

Moreover, poor integration of prenatal, intrapartum, postpartum, and neonatal services, along with the MOH's outdated (1986) general operating guidelines, compounds the problem described by the above statistics. Clearly, the statistics are a mandate to refocus activities and programs on maternal and child health and reproductive health within primary health care.

4.3.4.3 Lifestyle Issues

In addition to cardiovascular and ischemic heart diseases and cancers as the leading causes of death, Georgia has seen significant increases in mental health problems and drug abuse. These trends all point to an overstressed economy in which smoking, alcohol use and abuse, and disruption of family life have begun to shift lifestyle issues to the forefront of public health advocates' agenda, replacing to some degree more traditional concerns such as immunization and ARI/CDD.

4.3.4.4 Nutritional Concerns

Forty percent of pregnant women and infants suffer from iron deficiency anemia while 63 percent of school children are iodine deficient. Legislative activities and micronutrient supplementation have only partly addressed nutritional needs.

4.3.4.5 Pharmaceutical Issues

In 1995, the Cabinet of Ministers and the MOH enacted a resolution to regulate and monitor pharmaceutical provision; registration of imported drugs is coupled with fees for each drug. Nonetheless, illegal drug importation accounts for up to half of the drugs in the marketplace. Humanitarian agencies supply Georgia with about 75 percent of all legally imported medical goods, including drugs.

WHO, with support from the UK Know-How Fund, has provided the MOH with assistance since 1994. The availability of essential drugs has increased to about 50 percent of market demand. MOH reports show increased consumption of a limited range of low-cost essential drugs. A national health policy is being drafted with help from WHO. It is expected to include a national drug policy and is anticipated to be adopted in late 1998, replacing the current 1995 policy document.

WHO has proposed and the MOH has accepted new mechanisms for providing hospitals with quality drugs at reasonable and affordable prices. Pilot hospitals follow the national essential drug list and accept standard treatment guidelines. The national drug formulary is seen as an important initiative but has not yet achieved widespread use. The Children's Hospital has made a strong commitment to improved use of antibiotics, and WHO support in developing methodologies to monitor the use of antibiotics is being implemented. The School of Pharmacy is in the process of revising the curriculum for pharmacy students in accordance with WHO recommendations. Hospital pharmacies are squeezed by the difficult financial situation, and wholesalers do not want to sell to hospitals because they are not reliable payers.

4.3.5 Past USAID Assistance in the Health Sector

USAID has generally focused on both helping Georgia meet the critical challenges of economic and democratic transition and providing humanitarian assistance to the most vulnerable groups. To date, USAID-assisted health programs have been limited to the following:

4.3.5.1 CDC and Health Information Systems

From December 1992 through August 1996, the U.S. Centers for Disease Control and Prevention (CDC) provided technical assistance, training, and equipment to help the Georgian Ministry of Health reform its public health information system. Efforts included restructuring public health epidemiological practices and upgrading public health surveillance capabilities. Specific activities focused on modern epidemiology, biostatistics, and scientific communications; providing internationally accepted working case definitions; indicator selection; developing the capacity to publish an epidemiological bulletin; and establishing a data line for the collection, analysis, and reporting of health information. For a variety of reasons, the assistance has had less impact in Georgia than in Armenia.

4.3.5.2 Hospital Partnership

The American International Health Alliance has supported a successful partnership among the Emory University School of Medicine, Georgia State University, Grady Memorial Hospital of Atlanta, and Tbilisi State Medical University and City Hospital No. 2 in Tbilisi. The partnership has focused on a broad range of areas, including health policy reform, health management, nursing education and professional development, maternal and child health, medical library and information services, medical education reform, EMS training, and clinical practices.

4.3.6 Other U.S. Government Programs

Other U.S. government assistance to Georgia's health sector includes support to UNICEF to increase measles coverage under Georgia's childhood immunization program; hospital equipment and supplies donated by the U.S. Department of Defense; distribution of humanitarian pharmaceuticals; feeding

programs for vulnerable populations; shelter and heating assistance; assistance in food production; and medical, psychosocial, and employment programs for disabled adults.

In addition and in accordance with congressional directives, USAID will initiate a reproductive health program in Armenia in FY 1998 to decrease extensive reliance on repeat abortions as a method of contraception. USAID/Caucasus will launch the program by conducting information, education, and communication (IEC) campaigns to promote greater knowledge, acceptance, and adoption of modern methods of contraception. The campaign will also promote the prevention of sexually transmitted diseases (STDs) and HIV/AIDS.

4.3.7 Other Donors

Other than the United States, the major donors active in the health sector are WHO, the World Bank, UNICEF, UNHCR, ECHO, the UK Know-How Fund, WFP, UNFPA (through UNDP), Canada, Israel, Germany (through GTZ's medical project), and the Soros/Open Society Institute. USAID's assistance has mainly been through the Save the Children umbrella grant, a PASA with CDC, and a Partnership grant with Emory University systems for the Atlanta-Tbilisi Health Partnership. Other humanitarian aid donations to IRC, the Salvation Army, and other U.S. PVOs have been channeled through SCF-USA. Other NGOs active in health services in Georgia include Accion Contra el Hambre (ACH), UMCOR, IRC, MSF-Spain, ACTS, the Georgian Foundation, Health Net International, and OXFAM. International organizations active in health also include ICRC and IFRC.

Most of the international assistance to Georgia started in 1992 as a direct result of the war in Abkhazia. The activities undertaken by most partners continue to exhibit a predominance of humanitarian aid, although more and more of today's international partners are involved in longer-term community development and national health reform. The MOH needs to make a conceptual shift away from the notion that humanitarian aid will continue to subsidize its social sector obligations. Indeed, a gradual but steady movement away from this dependency is very much needed, particularly now that efforts are already underway to mold and shape reform efforts before they are cast in stone. A few internationally assisted projects have been institutionally integrated into the MOH structures or strategies; those few that are not integrated are not disseminating the lessons learned widely or rapidly enough for others to avoid their mistakes. Other than the populations covered by humanitarian aid (mainly commodity distribution and some minor services), most of Georgia's vulnerable groups have little or no access to quality health services. In a country with a mere 5.4 million inhabitants and over 20 international organizations and half as many donors working over the past five to six years, there is clearly no paucity of supply. At the national level, too many interventions, often implemented in the same health reform area (e.g., health information system support), are taking place, with disjointed implementation and considerable confusion within the MOH as to the purposes of each or all projects. The international partners have had an even less favorable impact on Georgian public opinion toward reform, particularly given no real tangible gains accruing to a majority of the population despite reforms in the system. Disillusionment is coupled with a sense of powerlessness at certain levels.

4.3.8 Recommendations

• <u>Budget</u> (all estimated)	Reproductive Health	FY98 - 1.15;	FY99 - 1.6;	FY00 - 1.6
	Partnerships	FY98 - 0.3;	FY99 - 2.5;	FY00 - 2.5
	Other	FY98 - 2.3;	FY99 - 1.0;	FY00 - 1.0

4.3.8.1 Major Options Not Developed

- **Bricks and Mortar** (including water and sanitation; expanded humanitarian assistance; drug production, procurement, and distribution; equipment; building rehabilitation, etc.);
Rationale: USAID should focus its efforts on capacity-building activities that affect all diseases and not on financing commodities, expanding humanitarian assistance, or investing in vertical, disease-specific programs.
- **Disease-Specific/Vulnerables-Specific Interventions** (such as TB or other infectious diseases; cardiovascular or other chronic diseases; environmental health; and mental health, disabilities, and other special vulnerable groups);
Rationale: The region has a dynamic epidemiological profile. Just as donors have been called upon to address diphtheria in the past and tuberculosis now, the team was generally concerned that those efforts would have little impact or not be sustainable unless systemic issues, which affect all diseases, are addressed through capacity-building activities. In addition, there was concern about developing a sense of entitlement/welfare mentality, which might be counterproductive and is economically insupportable.
- **Personnel Training** (including continuing medical education; provider retraining; medical training curriculum development; MOH skills development);
Rationale: Many of these activities are components of options presented elsewhere or supported by other donors; the team's view was that skill weaknesses are better addressed through efforts directed at broader, systemic capacity building rather than through narrow efforts focused on training per se.

4.3.8.2 Selected Options for USAID Consideration

The team's key recommendations to USAID, detailed in the Recommendations section of the Options Matrix (Section 2.1), are threefold. We urge support for

1. information, education, and communication efforts in reproductive health;
2. "making health care reform work for us" by building on the UNICEF model to stress development of a full understanding among subnational units of government, providers of services, and the population of their new roles, rights, and responsibilities necessitated by changes within the health care system; and

3. improving the health information system so that its product is timely, consistent, and useful to users/decision makers at the national and subnational levels.

The Options Matrix (Section 2.3) spells out additional options, including the management burden and intermediate results.

ANNEX A

A Note on Epidemiologic Considerations

Before appreciating the significance of a country's health statistics, the reader must be aware of data constraints and limitations. A review of the data available to the team indicated that various sources quote different statistics. In addition, case definitions vary and different denominators may not allow easy comparisons. For example, abortion rates may have been expressed as number per 1,000 live births in some data sets or as number per 100,000 women of child-bearing age (CBA) in other sets. Another example concerns data on ARI deaths, whereby deaths may have been expressed as deaths per 1,000 live births or as a percent of deaths in children under one year of age.

Other factors, such as reporting on detection biases, can modify the true meaning of health data. Biased data sources, notably hospital-based data, preclude reporting on ambulatory statistics. Suppression of data may be at work; for example, the government may chose not to disclose total numbers. Some subsystems may not even report data, e.g., TB in jails may not be included in overall TB statistics. HIV/AIDS and STD data may be considered sensitive and therefore are underreported. As a carryover from the Soviet era, overreporting may occur in areas that cannot afford to "look bad," e.g., EPI coverage. Moreover, some data "hiding" still occurs where HIS officers have not grasped the value of data for program funding and greater technical assistance and support.

As demonstrated by infant mortality rates, case definitions can influence the significance and interpretation of a country's health statistics. For example, counting only live births weighing at least 2,500 grams, the IMR may underestimate actual conditions. Because infants of very low birth weight (under 1,500 grams) experience higher mortality rates, they raise the IMR considerably when their statistics are weighted. For example, the official IMR for Georgia is 18 to 21 deaths per 1,000 live births; however, by including births under 1,500 grams (the IMR is 800 to 900 deaths per 1,000 live births), the IMR increases to as much as 55 to 79 deaths per 1,000 live births.

Baselines may be missing or inaccurate or methodologies may not allow generalization of findings; data may not be representative because of the sampling frame. Occasionally, statistical tables provide only absolute numbers or numerators without any sense of the denominators. Lack of distinction between incidence and prevalence data, changes in population growth, and selective mortalities (which make a decreasing number of cases look like improvements when increasing deaths are the cause of lower prevalence) all may lead to misinterpretation of trends when assessing health statistics. Failure to disaggregate data into either incident (new cases) or prevalence (existing) may give rise to double counting.

Lack of cooperation between various departments, e.g., those responsible for HIV and STD, may mean that data sets are incomplete or duplicates. For example, HIV tracking in Armenia falls under the Department of Hygiene and Epidemiologic Surveillance while STD tracking falls under the Department of Prevention and Treatment. The departments report to different components of the MOH and have separate budgets and strategic plans and IEC efforts, thereby weakening both

departments' data collection efforts and at times leading to public confusion regarding whether HIV is a STD.

Lack of a public health and prevention mentality often means that no contact tracing occurs and that passive surveillance underdetects and underestimates the magnitude of a health problem. This is most critical for stealthily communicated diseases such as HIV, STDs, and tuberculosis. The former Soviet practice of relying on the local police to track cases still carries over in some areas, with the attendant fear of reporting or discovery. Moreover, the public's easy access to private pharmacies and self-treatment translates into nonreported cases. Reporting is compulsory for only some diseases such as syphilis.

These epidemiologic concerns mean that regional strategies will have to work through consensus so that case definitions, reporting systems, and even reporting forms are standardized and user-friendly. In cases where one country may be further along the learning curve than the others, a forum for exchange and assistance can ultimately lead to a win-win situation. Regional HIS managers must develop greater capacities for understanding and implementing their local systems. In addition, they need to learn how data can be converted into information for decision making—for example, by displaying information graphically for easier absorption by nonnumerically inclined higher authorities. As previously noted, ANHAIC now has some of those capabilities and, supported by CDC/WHO, could be of assistance in sharing lessons learned, promoting the rewards of a well-functioning HIS, and describing the benefits of the potential power contained in health data about the health of the population.

ANNEX B

ASSESSMENT OF THE HEALTH SECTOR IN THE CAUCASUS SCOPE OF WORK

I. SUMMARY

This assessment is being conducted at the request of USAID/Caucasus. It is intended to provide USAID/Caucasus with:

- A synthesis overview of the health sector in the Caucasus region;
- Options and recommendations for a health strategy and set of activities which are technically, economically, socially and politically sound;
- The rationale, foundation, scope and future direction for USAID-funded activities in the health sector in the Caucasus (region and individual countries)for the next five to seven years.

The Caucasus region includes the countries of Armenia, Georgia and Azerbaijan (and the regions of Abkhazia and Nagorno-Karabak) each of which face diverse health, socio-political and economic situations.

II. BACKGROUND

Countries of the Caucasus region suffer from the same health problems as other NIS countries; but with perhaps a proportionately heavier disease burden and more serious infrastructure and systemic issues due to lingering internal conflicts. Generally speaking, USAID has concentrated on assisting the countries of the region to meet the critical challenges of economic and democratic transition, and providing humanitarian assistance to the most vulnerable groups.

To date health has not been a priority sector for USAID activities in the area. USAID assistance to date has focused primarily on family planning programs in Armenia and Georgia, activities by CDC to strengthen the health information systems in Armenia and Georgia, hospital partnership programs, and health related humanitarian assistance. More recently, however, USAID has begun to reassess its assistance strategies in the countries of the Caucasus region, and has indicated its readiness to consider the inclusion of additional health activities within these strategies. Factors contributing to this change include increases in the amounts of health assistance resources available to the Agency for use in the region, and a strategic decision to move USAID's role in these countries beyond its current emphasis on humanitarian assistance and relief, and into a more mature, development-oriented relationship with partners in the countries of the Caucasus.

III. PURPOSE OF ASSESSMENT

This health assessment will help USAID/Caucasus determine the best direction for health sector activities, integrated into both country-specific and broader regional strategies. To the extent possible, the assessment will be a summary and synthesis of information available and work previously completed. While it is not intended to be exhaustive, it is expected to be complete enough to provide USAID with adequate justification and rationale for the directions chosen and recommendations made. Once the assessment report has been completed, it will be used as the basis for further discussions among USAID/W and the participating USAID missions toward the development of health assistance strategies in the three countries.

IV. ACTIVITY DESCRIPTION

Conduct an assessment of the health sector environment in Armenia, Georgia and Azerbaijan, to focus on the following topics. These topics, moreover, shall also serve (along with an executive summary) as an approximate table of contents for a single report to be prepared by the assessment team:

1. Socio-Economic and Political Context: Briefly describe

- a) Key socio-economic indices for the populations of the three countries (population size, mortality, income, literacy, etc.)
- b) The political/security environment
- c) Current public policies that affect the availability of and access to health care services in the public and private sectors
- d) Key trends, official attitudes toward policy reform in the health sector
- e) The environment for privatization and private investment in the health sector
- f) Household-level economics, including spending on health care

2. The Health System: Briefly describe

- a) The structure, range and quality of health care services (public and private sectors) in the three countries; include a brief description of the availability of and access to essential drugs and vaccines.
- b) Public access to health care services, with specific reference to under-served elements of the population
- c) The health sector financing systems utilized to determine and allocate resources at national and local levels; provide estimates of the funding flowing through these systems
- d) Health sector reform measures in place or under consideration in the three countries
- e) The caliber and effectiveness of managers at health care delivery facilities

3. Priority Health Problems:

- a) Provide epidemiological profiles which outline the major health problems in each country, with specific attention to the health of children and women
- b) Note the role of malnutrition, if any, in exacerbating health problems
- c) Describe the capacity of the public and private health care systems to respond to these priority health problems

4. USAID Assistance to Date in the Health Sector:

- a) Summarize USAID assistance to date in each of the three countries
- b) Comment on extent to which this assistance responds to the priority health concerns noted above

5. Other Donor and NGO Activities:

- a) Summarize other-donor and NGO assistance in each of the three countries
- b) Comment on extent to which this assistance responds to the priority health concerns noted above

6. Options for USAID Involvement:

- a) Identify high priority opportunities for USAID/Caucasus participation in health sector assistance
- b) Identify USAID's comparative advantage in pursuing specific health assistance opportunities
- c) Identify funding constraints and issues which may affect USAID's responses to priority health problems, e.g., earmarks in women's reproductive health, partnerships, etc.

7. Conclusions and Recommendations: On the basis of the foregoing analyses,

- a) Suggest an integrated and strategic approach to the sector
- b) Outline a draft strategic framework, including possible strategic objectives and intermediate results
- c) Suggest a possible range of program activities
- d) Identify critical areas needing further assessment

V. METHODOLOGY

A five-person team, as described in Section VI, will undertake this assignment as follows:

1. Prior to the team's departure for fieldwork, the Public Health Advisor and the local facilitator will collect health sector documentation in Washington and the field. To the fullest extent practicable, this documentation (especially that collected in Washington) will be distributed to other members of the team two weeks prior to the team's departure for the field.

2. The full team (minus the local facilitator) will meet in Washington for a one or two day team planning meeting (T.M.) prior to the team's departure for the field. The team planning meeting will clarify the respective roles of the team members, including drafting assignments for portions of the team report.

3. Prior to field work, the team will meet with (or speak by telephone with) representatives of USAID (desk officer, BRM, ENI/DGSR/HRHA, G/PHN), CDC, participants in the AIHA "Partnerships" program (e.g., the Atlanta-Tbilisi partnership at Emory Univ. and Grady Memorial Hospital), the World Bank, other donors and PVOs to discuss the purposes of the assignment and to solicit views toward development of a USAID health assistance strategy in the countries of the Caucasus. These meetings/calls will be coordinated by the Public Health Advisor, and are expected to require not less than two days of team effort.

4. Prior to the initiation of fieldwork, the local facilitator and USAID/Caucasus will arrange and schedule meetings with key MOH, NGO and other-donor counterparts. USAID/Caucasus will also coordinate arrangements for team transportation, hotel accommodations, drivers and interpreters, and other support required to facilitate the team's work in the field.

5. The tentative field itinerary will include one week each in Armenia and Georgia, and four days in Azerbaijan. Upon completion of field work, the team will spend three additional days in either Yerevan or Tbilisi to prepare an initial draft of the team report. Total time for fieldwork, excluding international travel: approx. 3-and-a-half weeks.

a) Upon arrival in Yerevan, the team will review its work plan and proposed schedule with USAID, and will revise them as needed.

b) In each country, the team will meet with key USAID regional and country staff and with key MOH, PVO/NGO, private sector representatives. During its country visits, the team will conduct limited visits to representative sites (candidates will be discussed prior to travel). During these site visits, the team is encouraged to talk with health care providers, managers of health care provider institutions and with patients and clients in order to solicit "customer" views regarding priority health concerns and actions needed to address them.

c) By end of first week in the region, the team will begin developing health assistance options and their rationale. During the team's last two days in Yerevan or Tbilisi (TBD), the team will work with USAID representatives to clarify the team's findings, conclusions and strategy, and to identify initial activities for USAID assistance in the health sector. On its final day in Yerevan or Tbilisi the team will present a verbal briefing (and an annotated outline) to USAID staff on the team's findings, conclusions and recommendations.

6. The Health Planning and Policy Specialist (Team Leader) and the Public Health Specialist will prepare an initial draft of the team report, with inputs from rest of team. Following distribution of the draft report to the entire team, the Team Leader and the Public Health Specialist will finalize the

report--relying as needed on conference calls and/or virtual participation of other team members to clarify/correct inconsistencies or ambiguities in the report.

VI. SUGGESTED TEAM COMPOSITION

1. **Health Planning and Policy Specialist** (Team Leader): Requires experience in health policy reform, including analysis of policy options for health care reform; analysis and estimation of the components of existing and proposed health care financing programs in the public and private sectors.
Required LOE: 39 days, including one week in Washington for assignment briefings and preparation; three weeks fieldwork; four days travel, and eight days for report preparation.
2. **Public Health Specialist** - Requires prior experience in the Caucasus, especially in the assessment of health conditions and development of appropriate/feasible donor responses to such problems. Must have excellent conceptual and drafting skills, as this consultant will have primary responsibility for preparation (with other team members) of the team report (draft and final).
Required LOE: 47 days, including three weeks in Washington for document collection and analysis and assignment preparations with USAID missions; three weeks fieldwork; four days travel; and two weeks for report preparation
3. **Physician/Epidemiologist** - Requires prior experience in the assessment of health care issues in the region, and in the examination, analysis and interpretation of epidemiological data to help determine implications for program reform. Working knowledge of CDC efforts in the area a plus.
Required LOE: 35 days, including one week in Washington for assignment briefings and preparation; three weeks fieldwork; four days travel; and eight report preparation.
4. **Local Facilitator/Interpreter** - Requires good familiarity with the health structure in the region and key policy and decision makers in the health sector, especially in Georgia and Armenia.
Required LOE: 32 days, including two weeks for assignment planning, scheduling, logistic arrangements, etc., and three weeks fieldwork.
5. **USAID/Caucasus PHN Officer** - Recruitment for this position is under way. .
6. **Economist, project/strategy/program design advisor** - Paul Holmes, ENI/DGSR

A contractor will provide consultants for position nos. 1, 2, 3 and 4 above (Total contractor LOE: 153 days), and would be authorized to undertake a six-day work week in the field. USAID will

provide the services of the Economist/Design member of the team (Holmes) and possibly one additional person to be identified by ENI/DGSR/HRHA.

VII. ADDITIONAL INSTRUCTIONS

- !** Utilize/build on previous assessments and existing data and documents to the maximum extent possible (including WWW)
- !** Recruit the Public Health Specialist as soon as possible to begin collection, analysis and distribution of health sector documents, coordination with other team members, and scheduling of activities in Washington and--in conjunction with the local facilitator--in the region..
- !** Planned start date for travel to Caucasus: May 1, 1998.
- !** Once the team's final report has been submitted to USAID (within one month of the team's return to the U.S.)The USAID PHN person will continue to refine strategy and objectives to enable clear decisions concerning specific activities and options by mid summer.

ANNEX C

Contacts List

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ANNEX D

Caucasus Health Assessment Materials

Predeparture Reading Materials

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